

Gov. Doc.
Can.
N1

Canada, National Development Bureau

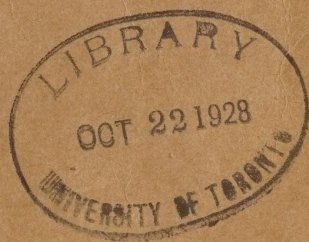
CAI
IAI
-P26



The Peace River Country

Ed. 2, rev.

3 1761 11556269 6



Canada

Canada. National Development Bureau

CA 1 IA 1

- - P26

THE
PEACE RIVER COUNTRY
CANADA

ITS RESOURCES AND OPPORTUNITIES

BY

F. H. KITTO, F.R.G.S.

(Second edition, revised)

Department of the Interior
CANADA

HON. CHARLES STEWART,
Minister

W. W. CORY, C.M.G.,
Deputy Minister

Natural Resources Intelligence Service
F. C. C. LYNCH, *Director*
OTTAWA, 1928

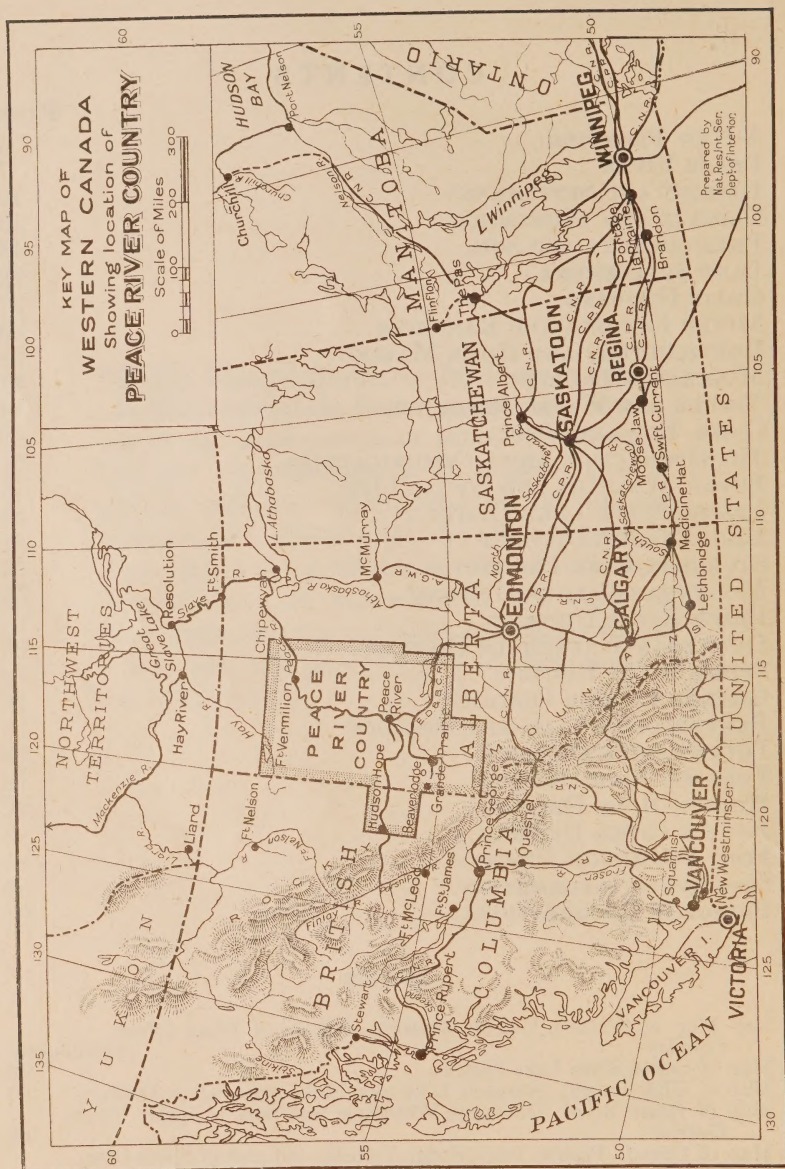
THE Natural Resources Intelligence Service is a branch of the Department of the Interior, one of the departments of the Government of Canada. Its function is to supply, free of charge, authentic information on the natural resources of Canada to all who are interested in them and in the problems associated with their development. In pursuance of this object it issues numerous reports, maps and charts which, it is hoped, will prove helpful to those making use of the Service.

CONTENTS

	PAGE
A NEW FRONTIER.....	5
PEACE RIVER.....	7
HISTORY AND SETTLEMENT.....	10
CLIMATE AND VEGETATION.....	13
PHYSIOGRAPHY AND SOIL.....	18
LAND SETTLEMENT.....	23
GRAIN GROWING.....	27
MIXED FARMING AND RANCHING.....	33
HORTICULTURE AND HOME MAKING.....	38
MINERAL RESOURCES.....	41
TIMBER AND WATER RESOURCES.....	44
GAME, FUR AND FISH.....	49
TRANSPORTATION AND COMMUNICATIONS.....	51
PUBLIC WELFARE AND SOCIAL LIFE.....	56
LESSER SLAVE LAKE DISTRICT.....	59
HIGH PRAIRIE DISTRICT.....	61
STURGEON LAKE DISTRICT.....	63
McLENNAN-FALHER DISTRICT.....	65
PEACE RIVER DISTRICT.....	66
DUNVEGAN-WATERHOLE DISTRICT.....	69
SPIRIT RIVER DISTRICT.....	70
GRANDE PRAIRIE DISTRICT.....	72
BEAVERLODGE-VALHALLA DISTRICT.....	76
POUCE COUPÉ DISTRICT.....	78
FORT ST. JOHN DISTRICT.....	79
HUDSON HOPE DISTRICT.....	82
BATTLE RIVER DISTRICT.....	83
FORT VERMILION DISTRICT.....	85
SOURCES OF INFORMATION.....	89
PERSONAL ENDORSATIONS.....	91

MAPS

Key Map of Western Canada showing location of Peace River Country.....	Frontispiece
Map of Lesser Slave Lake District.....	60
Map of High Prairie, Sturgeon Lake and McLennan-Falher Districts.....	62
Map of Peace River, Dunvegan-Waterhole and part of Spirit River District.....	68
Map of Grande Prairie, Beaverlodge-Valhalla and part of Spirit River Districts.....	74
Map of Pouce Coupé, Fort St. John and Hudson Hope Districts.....	80
Map of Battle River District.....	84
Map of Fort Vermilion District.....	87



The Peace River Country

A NEW FRONTIER

Three hundred miles beyond Edmonton, the capital city of the province of Alberta, lies the heart of the Peace River country, the last great agricultural frontier of the Western Canadian plains. This vast inland reserve, more or less detached from the older settled plains by an intervening belt of rugged territory bordering the Athabaska river, is now experiencing an active era of colonization and development such as each successive section of the Canadian prairie provinces has witnessed during the past fifty years.

The Peace River country has no fixed boundaries, either natural or defined. The drainage basin of Peace river proper, exclusive of its headwaters, embraces an area of approximately 90,000 square miles. The upper or western part of this area is quite mountainous while the lower part is somewhat the reverse. In the popular conception of the country these extremities are ignored, thus leaving a great, compact, mid-section belt of potential agricultural land that extends somewhat beyond the actual north and south limits of the Peace watershed.

This squaring-up process results in a more or less arbitrary area as shown on the key map on a preceding page. It conforms to the boundaries of the Peace River and Grande Prairie land agencies except that the northerly limit is here shown as the 59th degree of north latitude while, for purposes of record, the Peace River land agency extends to the 60th degree, the northerly boundary of Alberta.

An Area of 47 Million Acres

The tract of land thus designated as the Peace River agricultural country has an area of approximately 73,500 square miles, or in round numbers 47 million acres. This exceeds the combined areas of Ireland, Scotland and Wales. It is over six times the size of Belgium, nearly five times that of Denmark, one-third the extent of France, and slightly larger than the South American republic of Uruguay. Compared with well-known areas in the United States the Peace River country is larger than Oklahoma, Missouri, or North Dakota. It exceeds the combined areas of Pennsylvania, West Virginia and Delaware or those of the six New England States.

This great country comprises the northwesterly part of the province of Alberta and a smaller area known as the Peace River block in the adjacent province of British Columbia. Very approximately its geographical boundaries might be described as follows: From longitude 114° west to 120° west and from altitude 55° north to 59° north, which includes the Alberta section, and westerly as far as longitude 122° west between latitudes $55^{\circ} 30'$ north and $56^{\circ} 30'$ north. Within the same range of latitude are found the major portions of Scotland and Denmark. Areas of equal longitude include the eastern parts of Washington and Oregon, Nevada and the lower part of California. The centre of the Peace River country is nearly 1,500 miles due north of the city of Los Angeles, California.



PEACE RIVER DAIRY CATTLE

The Peace River country produces nearly half a million pounds of creamery butter annually and undoubtedly has a great future as a dairying country.

**Favourable
Agricultural
Conditions**

Comparatively speaking the location of the country is somewhat northern and judged on this aspect alone its agricultural possibilities have been doubted by many. It has been demonstrated beyond question, however, that the combination of favourable climate, moderate precipitation and deep soil of

surpassing fertility guarantees this area as being one of the world's great wheat and mixed farming reserves. Its development is merely getting under way and the immediate future promises to witness rapid strides.

PEACE RIVER

Peace river itself, aside from its vast bordering valleys and plateaus, is of more than passing interest. It is a major link in the great Mackenzie River system, which, with a length of 2,525 miles from its extreme headwaters to its Arctic delta and a drainage basin of 682,000 square miles, constitutes the largest river system in Canada and one of world-wide prominence.

At the opposite extremities of a trough-like depression in the mountainous regions of the northern and central interior parts of British Columbia, two large rivers, the Finlay and the Parsnip, have their sources. The headwaters of the Finlay, which are also the upper extremities of the whole Mackenzie system, are separated from those of the Stikine and the Skeena rivers, flowing to the Pacific coast, by the Cassiar and the Omenica ranges of mountains. Those of the Parsnip rise but a few miles north of the town of Prince George, being separated from the upper section of the Fraser river by a comparatively low divide. Between the great depression in which these rivers are found and the plains regions of Western Canada lies the main Rocky Mountain range, having a northwesterly and southeasterly bearing.

The Source of Peace River

The Finlay, flowing from the far northwest between the snow-capped peaks of the Cassiar and Omenica ranges on the one hand and those of the Rockies on the other, meets the Parsnip, flowing almost directly towards it, at a point in the lowest part of the valley near the foot of Mount Selwyn. The larger volume of water resulting from the union of these two great mountain rivers, already reinforced by numerous tributaries of generous dimensions, is thenceforth known as Peace river. The meeting place (the source of the Peace), now known as Finlay but formerly as Finlay Forks, is the site of a small trading post and a scattered settlement of a few trappers, prospectors and other pioneers.

An outlet for these converging waters is found through a cleavage in the Rocky mountains. Starting on a course almost at right angles to the trend of its affluents the Peace flows sharply to the east and for nearly a hundred miles winds its way through one of the most gorgeous mountain passes in existence. Its final sortie from the mountains to the plains region is marked by a remarkable chasm known as Rocky Mountain canyon. At the lower end of the canyon is located the small settlement of Hudson Hope. This marks the westerly, or upstream, limit of the main agricultural portion of the Peace River country.

From Hudson Hope the Peace flows in a general easterly direction to the town of Peace River, formerly known as Peace River Landing or Peace River Crossing, thence more northerly to Fort Vermilion and thence easterly and northerly to the vicinity of lake Athabaska. About fifty miles below Fort Vermilion a series of rapids and low falls known as Vermilion chutes are found. These might be said to mark the easterly or downstream limit of the so-called Peace River country. The country below the chutes is merged more closely into the lower Athabaska and Slave district.

Great Rivers in Mackenzie System

The Athabaska river rises on the easterly slopes of the Rocky mountains but its sources are farther south than those of the Peace. Flowing easterly and northerly it finally debouches into lake Athabaska. The main discharge of this lake, being practically a continuation of the Athabaska river but known as the Rocher, flows northerly and is joined within a few miles by the Peace. The larger river thus formed is known as the Slave. Peace river proper, therefore, is that portion of the Mackenzie system extending from the confluence of the Finlay and Parsnip rivers to its own confluence with the Rocher, or, practically speaking, with the Athabaska discharge.

Slave river in turn flows northerly some 266 miles to Great Slave lake, which is in reality a huge mid-section reservoir on the Mackenzie system. Several other rivers of considerable volume also find an outlet in this great lake. A magnificent waterway, 1,065 miles in length and averaging about a mile in breadth, then completes this extensive system by carrying the discharge of Great Slave lake to the Arctic coast, reaching tide-water at Mackenzie bay off Beaufort sea. This waterway is the Mackenzie river proper.

**Plateaus Drained
by the Peace**

On either side of Peace river, from Hudson Hope to the Vermilion chutes, are vast plateaus varying from 2,600 to 1,000 feet above sea level. The valley of the Peace is about 800 feet below the plateau level near the foothills. This difference gradually diminishes to about 100 feet of gentle slope at Fort Vermilion, below which it practically disappears. Northerly these plateaus extend beyond the watershed of the Peace to include vast areas about the headwaters of Hay river, which finds its way independently to Great Slave lake. Southerly they extend to include lands surrounding Lesser Slave lake, a large body of water draining into the Athabaska. These are the great areas constituting the Peace River agricultural country.

The width of Peace river varies from about a quarter of a mile at Hudson Hope to a mile at Vermilion chutes. Having its sources in the mountains it is subject to considerable fluctuation in volume, rising or falling rapidly according to weather conditions in its headwaters. The highest water is usually experienced in early mid-summer and the lowest during the winter months. Like most plains rivers the Peace is comparatively shallow, with the channel-shifting type of bed. It is navigable for motor boats and for the large type of flat-bottom, stern-wheel steamboats, except where the interruptions caused by Rocky Mountain canyon and Vermilion chutes occur. These divide it into three navigable sections.

The current is fairly steady and uniform, the rate varying according to high or low stages of water. The Dominion Water Power and Reclamation Service has ascertained, through a series of records observed from May to October over a period of five years, that the average speed of the whole stream is 2.6 miles per hour at Hudson Hope, 2.7 miles at Peace River, and 2.4 miles at Fort Vermilion. The mid-channel speed would be from 50 to 75 per cent greater. During high-water periods the average rate of mid-stream flow is as high as 10.5 miles per hour from Hudson Hope to Peace River and 5.5 miles from Peace River to Fort Vermilion. The rise and fall of the river is about 15 feet.

The following table sets forth the distances between various points of interest from its source to its mouth:—

PEACE RIVER—TABLE OF DISTANCES

From	To	Miles
Head (Finlay).....	Head of Rocky Mountain canyon	72
Head of canyon.....	Hudson Hope (Foot of canyon)...	20
Hudson Hope.....	Fort St. John.....	51
Fort St. John.....	Alberta-B.C. boundary.....	35
Alberta-B.C. boundary.....	Dunvegan.....	82
Dunvegan.....	Peace River.....	61
Peace River.....	Mouth of Notikewin.....	96
Mouth of Notikewin.....	Carcajou point.....	59
Carcajou point.....	Fort Vermilion.....	93
Fort Vermilion.....	Vermilion chutes.....	50
Vermilion chutes.....	Peace point.....	128
Peace point.....	Mouth (Slave river).....	60
	Total.....	807

HISTORY AND SETTLEMENT

While the Peace River country is still spoken of as a new territory it has a long and interesting history in Western Canadian development. Fur traders had penetrated as far west as the Athabaska river by the year 1778. About ten years later Fort Chipewyan was established as northern headquarters on lake Athabaska. The mouth of Peace river being not far distant, explorations on this great waterway were soon undertaken by the traders.

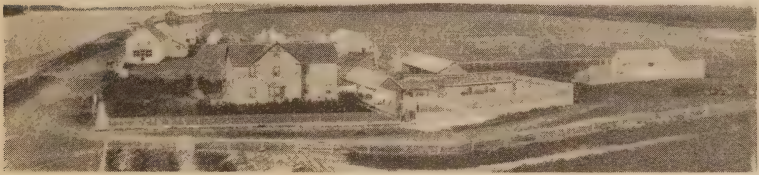
Explorations by Mackenzie in 1792

It was in the fall of 1792 that Alexander (later Sir Alexander) Mackenzie, a partner of the Northwest Company, set out from Fort Chipewyan on his remarkable voyage of discovery to the Pacific coast. Ascending Peace river as far as a point a few miles above the present town of Peace River he wintered in a newly constructed post called by him Fort Fork, or the Fort of the Forks. The ruins of this historic establishment are still in evidence. The site is on the right bank of Peace river, about six miles above the mouth of its tributary, the Smoky river, and opposite Shaftsbury Settlement. An agitation is now on foot to have this spot marked by a suitable cairn or monument.

The following year Mackenzie completed his journey, finding his way through the Rocky mountains by Peace River pass. The expansion of the fur trade was the natural sequence of such explorations. Within a few years several posts were founded at strategic points along Peace river and in the newly discovered territory adjacent to its headwaters west of the mountains, designated for many years by the traders as "New Caledonia."

**Early
Trading Posts**

Some of these posts have been in existence for a century and a quarter and are still doing business in much the same way as originally. Others have developed into thriving frontier communities. The town of Peace River might be said to have had its origin in Mackenzie's wintering post, thus dating its history back to 1792. In the same manner the "Old Establishment" of 1798 has given way to Fort Vermilion, the centre of the lower Peace River territory. Other early posts east of the mountains include Dunvegan, established in 1800, and Fort St. John, in 1805.



FORT VERMILION

Trading post and farm of Hudson's Bay Company on south bank of Peace river.
This Post has been a centre of the fur trade since 1798.

The principal posts in the New Caledonia district were Fort MacLeod on MacLeod lake, established 1805, Fort St. James on Stuart lake, established 1806, and Fort George, near the confluence of the Fraser and the Nechako, established 1808.

For several years there was considerable traffic between Fort Chipewyan and New Caledonia by way of Peace river and its affluent, the Parsnip. The commerce of the early fur trade immediately west of the mountains originally flowed through Peace pass. From Fort Chipewyan the long and intricate route to eastern headquarters, over which the far-famed canoe

brigades of the great fur companies made annual voyages, followed the Athabaska river only as far south as McMurray, and then turning aside to the Clearwater, led to the renowned "long portage" and the headwaters of the Churchill.

**Edmonton
the Gateway
to Peace River**

Edmonton is today and has been for many years the gateway to the Peace River country, but, even before the Fort Edmonton of early days had begun to dominate the north, the entire length of Peace river was over-run by traders and voyagers who came and went by more northerly routes. As Edmonton gradually assumed control of its outlying territory, new routes of commerce were established. The Yellowhead pass permitted of a more direct connection with New Caledonia, and, by cutting out a hundred-mile trail northerly, the Athabaska river was utilized to provide a new outlet from Fort Chipewyan. The heart of the Peace River country was penetrated also by way of Lesser Slave lake.

While the first white men to take up their abodes in the valley of the Peace were concerned primarily with the fur business, they were not indifferent to the horticultural possibilities of the territory. Nearly every resident trader promptly developed a kitchen garden. Over one hundred years ago the post-manager at Dunvegan reported that all kinds of common vegetables were being raised and that even small fields of barley had ripened satisfactorily. Wheat of the very finest quality was early grown at Shaftsbury and at Fort Vermilion. The agreeable climate was a constant source of comment and in their quest for buffalo and other large game the traders viewed with admiration the vast prairies and park-like lands of the plateaus.

Decades before the rapidly advancing frontier of agricultural settlement had spread from Winnipeg to Edmonton, the fame of the Peace River valley had gone abroad. Its favourable climate, charming scenery, vast plains, fertile soil and varying resources had been recounted by many a traveller. Not, however, till after the lands adjacent to Edmonton had become fairly well settled was this great Peace River reserve given serious attention.

**Early
Settlement**

The census of 1911 showed a total population of less than 2,000 souls in the district, including settlers, traders, missionaries and Indians. That of 1921, showed nearly 20,000. This remarkable increase of 1,000 per cent in a single decade is due to a rush of land seekers who invaded the district during this period.

The long and arduous journey by the Athabaska, Lesser Slave lake and Peace River trail, or the Edson, Sturgeon Lake and Grande Prairie trail, was experienced by great numbers of these settlers during the first few years of the rush, but by 1916 a railroad had penetrated the heart of the district. The journey that formerly required from ten days to three weeks of toil and hardship could then be made in one day, with all the comforts and conveniences of modern railway service.

Settlement spread in two main divisions, one comprising the choice prairies north of Peace river and immediately west of the crossing of the old trail, and the other comprising the Grande Prairie lands south of Peace river and west of the Smoky. These two divisions have given rise to two important towns, namely Peace River and Grande Prairie. A few villages are growing up, but the settlement is mainly rural and considerably scattered. The census returns of 1921 included representations from over 225 townships exclusive of the Peace River block and the settlements about Fort Vermilion.

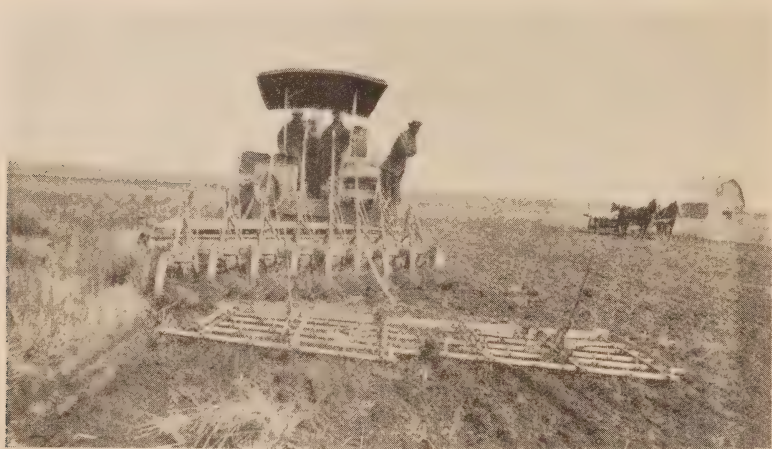
The more thickly settled portions of the district have made rapid strides in development and are already on a par with the old agricultural communities of the province as regards the various advantages of civilization. Up and down the river, however, from Hudson Hope at the edge of the foothills to Fort Vermilion north of latitude 58, are many scattered little settlements that are bravely pioneering the way for the thousands who will surely follow.

CLIMATE AND VEGETATION

The climate of the Peace River country is excellent, and remarkably moderate considering the latitude. The air is pure and bracing—in winter, clear and crisp, and in summer, dry and balmy. Extremes of temperature, sudden changes and severe storms are very rare. The winters are by no means mild but are very dry, with clear skies, little snowfall and moderate winds. Blizzards are unknown, but the mild Chinook winds occasionally work through the mountain passes from the warm Pacific, giving pleasing respites of balmy days to break the monotony of a steady cold.

**Seeding and
Harvest Dates**

Spring comes early and quickly. The snow rapidly disappears and the ground dries in a few days. Ice on the lakes and rivers breaks up during the latter part of April or early in May. Seeding is usually well under way by the middle of April, or about the first of May at Fort Vermilion. Most of the rainfall occurs in June, July and August. The average precipitation for the full year is from twelve to sixteen inches.



PREPARING FOR THE CROP

Power Machinery is extensively used in cultivating the land throughout the Peace River Country.

Harvest commences fairly early in August. September and October are usually especially pleasant months. Life in the woods is at its best during this period. The days are still warm in September but the nights grow colder and the flies disappear. October brings heavier frosts and the ice forms late in this month or early in November. Winter usually sets in early in November, although plowing has been continued some years till late in this month. Fairly mild weather till Christmas is not uncommon.

**Meteorological
Records**

An examination of official meteorological records from Fort Vermilion, Peace River and Beaverlodge, covering periods varying from twelve to twenty-one years in duration, reveals the following salient facts. The seasons are well defined and regular. The months of December, January and February are cold and dry and

represent a distinct winter season. The summer months of June, July and August make another well defined season having an average temperature considerably higher than that of May or September and usually a slightly greater precipitation.

Both December and February are from ten to twenty degrees higher than January. There is not so much variation during the summer season. July, the warmest month, has an average temperature at Fort Vermilion of sixty degrees (Fahr.), at Peace River sixty-one, and at Beaverlodge fifty-seven. June and August do not average more than three or four degrees below these figures.

Some interesting records at Beaverlodge show a marked difference in temperature on high and low land, as much as thirteen degrees spread being recorded on a summer night and twenty-three on a winter night between points half a mile distant and varying 109 feet in elevation.

Some of the early ripening strains of wheat that have recently been propagated will mature in the upper Peace River district in 110 to 115 days, and in the Fort Vermilion district in 95 to 100 days. The lower altitude and longer hours of sunshine give an advantage to the farther north areas that offset their shorter length of growing season. Barley, oats and vegetables mature even more rapidly than wheat. It is thus apparent that climatic conditions, on the average, are favourable for the production of cereals and vegetables throughout the major portion of the whole Peace River country. It should not be forgotten, however, that summer frosts occasionally do slight damage to tender crops and that untimely early fall frosts have been known to seriously damage, if not completely ruin, unmaturing grains. Even in these respects the country compares favourable with other parts of the Prairie Provinces.

Taken the year round the climate is healthy and enjoyable and conducive to active and vigorous outdoor life. It is one of the many attractive and valuable assets of the country.

Luxuriant Vegetation The luxuriant vegetation of the country is one of its most remarkable characteristics. Though the growing season is short, the rate of growth is rapid in midsummer, especially with respect to grasses, cereals, vegetables, shrubs and smaller plants. There are no barren or desert areas. The nearest approach to any natural lack of vegetation is sometimes seen on high areas of open prairies, in

exceptionally dry seasons, when the native upland hay is sometimes short and light in consequence. The prevailing impression of the landscape during summer months is one of abundant greenness.

Trees, shrubs, wild fruits and flowers abound, but the most striking form of native vegetation is probably the grasses. Everywhere except in the dense woods the ground is clothed with some form of pasturage. On the open prairies the native upland grasses can be made into hay of excellent quality. The marshes, edges of ponds and wet meadows produce heavy yields of slough grass which, though much coarser than the upland



FIELD PEAS IN BLOOM

These peas were seeded April 20 and photographed July 12, 1926, and well illustrate the prolific growth characteristics of the Peace River field crops.

varieties, makes a hay of fair value and excellent keeping qualities. Several varieties of legumes are native to the district, the most prolific of which are the so-called wild vetch and pea vines. They grow in great profusion in lightly wooded areas and flourish after fires, even though the soil has been injured for other crops.

**More Woods
than Prairie**

While much publicity has been given to the prairies of the Peace River country by far the greater portion of its area is wooded. The only commercial tree of note is the white spruce, excellent stands of which are found in nearly every valley from the headwaters of the many tributary streams to the mouth of the Peace itself. Closely associated with the white spruce, especially on the higher ground, is the aspen poplar. This spruce-poplar type prevails extensively. Black spruce and tamarack are found on poorly drained areas, balsam poplar (Balm of Gilead) in many valleys and lodge-pole pine on sandy and gravelly elevations. Birch is widely scattered, while some balsam fir is found in the mountain regions.

The prevailing shrubbery and undergrowth consists mainly of willows, which border many of the lesser streams and shallow lakes and ponds, and of alder. These are augmented in many sections by the bushes of red raspberries, high-bush cranberries and saskatoons, native fruits of excellent quality. The growth of these shrubs is very rapid and when associated with seedlings of poplar and spruce they reconvert a burnt-over area into woods again in the course of a few years.

**Famous
Park Lands**

Perhaps the major portion of the whole country consists of coppice or park-like areas in which patches of light open woods alternate with grassy, tree-free tracts of varying extent. These park lands comprise much of the unsettled agricultural land, practically all the open prairies having been disposed of some time ago. While more work is involved in their development it cannot be said to be a formidable task and the land, once improved, is of the very highest fertility.

While a change of climate in any district is a much disputed question it cannot be denied that the clearing up and draining of wooded and wet areas permits of an earlier and hence safer season. The introduction of earlier maturing varieties of seeds still further reduces the hazard of injury by frost to growing crops. Bearing these factors in mind and considering the prevailing favourable climate and luxuriant vegetation as observed over a period of a century and a quarter it is safe to assume that the Peace River country will be, ultimately, one of the world's great grain-producing areas.

PHYSIOGRAPHY AND SOIL

In the Peace River country three general physical features predominate. These are: a mountain range towering along its southwesterly limit, a vast plateau falling away in a gentle slope towards the northeast, and a mighty river winding its course through a deep valley from the mountains to the lower elevations of the far north. A closer examination reveals many physical irregularities. The surface of the plateau, though embracing several extensive areas of remarkable flatness, is level only in a comparative sense. There are several elevations of local prominence while the hundreds of tributary streams have cut out whole networks of valleys and ravines. A number of fair-sized lakes also are found.

Cretaceous System Prevails

Geologically, the district, not including the mountains, falls within the Cretaceous system, which is of comparatively recent age. The formation consists of shales, sandstones, limestones and marls, with extensive coal beds in the foothills. The weathering of these soft materials has produced a soil of great depth and uniformity. The absence of hard or out-cropping rock has permitted the streams and rivers to gouge out channels freely and to flow without interruption. Hence the drainage system is uniform and direct and free from lake expansions or waterfalls.

The high-water mark of Peace river at Finlay, its source, is about 2,000 feet above sea-level. Mount Selwyn, towering above it, has an elevation of 6,220 feet. At the foot of Rocky Mountain canyon the Peace has an elevation of slightly over 1,500 feet, while the plateaus on either side are more than 800 feet higher. At the town of Peace River the valley is 1,050 feet above sea-level at the river's edge while the plains, a few miles beyond the top of the bank, are 750 feet higher. Fort Vermilion has an elevation of less than 1,000 feet while that of the river is but slightly less. At the mouth of the river the elevation of the water has been recorded as 685 feet. The surrounding land rises very gradually and for several miles back but slightly exceeds an elevation of 800 feet above sea level.

Low Mountains and Hills

The most pronounced elevations are shown on a large scale map as hills or mountains. In reality they are more in the nature of lesser plateaus gently rising above the average level of their surroundings.

To the left of Peace river, facing downstream, and in successive order from the foothills, are found the following hills or mountains with their extreme elevations in feet above sea-level: Clear hills, 3,600; Hawk hills, 2,400; Naylor hills, 2,800; Watt mountains, 2,200; and the Caribou mountains, 3,300. These are of no special interest except the Caribou range, which is in reality a huge plateau, as yet practically unexplored. It lies north of Fort Vermilion.

Immediately south of Lesser Slave lake are the Swan hills, 3,800 feet above sea-level. They are quite extensive, well wooded and are included in the Lesser Slave Forest Reserve. Northeast of the lake is Martin mountain, 2,800 feet above sea-level, and more northerly, Trout mountain, 2,600 feet. East of Peace river and south of Fort Vermilion are the Buffalo Head hills, 2,600 feet above sea-level or about 1,500 feet above the surrounding plains.

South of Peace river and west of the Smoky there are some broken elevations dividing the Spirit and Grande prairies and the Spirit and Pouce Coupé prairies. These are known as the Birch and Saddle hills and the Blueberry mountains. Their extreme elevations slightly exceed 3,000 feet above sea level.

**Many Large
and Small Rivers**

There are several tributaries of the Peace beyond the foothills. On the left limit its principal ones are: the Beaton (formerly known as the North Pine) river, found in the Peace River block; the Whitemud, entering a short distance below Peace River town; the Notikewin (formerly known as the Battle); the Keg; and the Boyer, which enters a short distance below and opposite Fort Vermilion.

On the right limit are found the Pine, at the source of which a low pass occurs in the Rocky mountains, offering a short route to Fort MacLeod on MacLeod lake; the Kiskatinaw; the Smoky, which is the principal tributary of the Peace and joins it almost opposite the town of Peace River; the Harmon (formerly known as the North Heart) entering just below the Smoky; the Cadotte; the Wolverine and the Buffalo, flowing from the Buffalo Head hills and joining the larger river within a few miles of each other; the Wabiskaw, a long, large river flowing from the south and entering the Peace a few miles above Vermilion chutes; and the Mikkwa (formerly known as the Little Red) entering just below the chutes.

To the north and west is found Hay river, an independent feeder of Great Slave lake. It is on this river, a few miles north of Alberta, that the beautiful Alexandra falls are found. The Chinchaga is the principal tributary of Hay river. It rises just a few miles north of the Naylor hills and Keg river.

Another river that does not belong to the Peace system is the Lesser Slave, a short and very crooked waterway flowing from Lesser Slave lake to Athabaska river. Before the advent of the railway this stream was an important link in the steamboat route from Athabaska Landing to the settlements at the northwest extremity of the lake. Several small rivers discharge into this lake, of which the principal is the Heart, entering at the westerly extremity.



PEACE AND SMOKY RIVERS

Looking up-stream (westerly) at the junction of the Peace (right) and its principal tributary, the Smoky (left).

Smoky river itself has several tributaries of large proportions. The Wapiti, which marks the southerly boundary of the Grande Prairie district, and the Simonette enter from opposite sides and within a few miles of each other. Farther down, the Little Smoky adds its flow. These several rivers draw their waters from mountain streams and rivulets which are fed by the melting snow and ice of the high regions.

**Comparatively
Few Important
Lakes**

Lakes of the shallow, low-bank type common to plains regions are found here and there throughout the district. Most of them are small and unimportant, and many will be drained or partly drained as the country is developed. The only large body of water is Lesser Slave lake, 480 square miles in area, which lies at the southeast limit of the region.

A few miles northwest of this large lake two smaller ones are found, namely Winagami and Kimiwan. To the south and west are Snipe and Sturgeon lakes, still smaller, while to the north in unsurveyed regions are found a few of larger dimensions about which some Indian settlements are clustered. The principal of these are Utikuma, or Whitefish lake and Lubicon and Peerless lakes.

In the Grande Prairie district a few shallow lakes are found of which Bear lake is the largest. Moberly lake is a small body of deeper water lying a few miles south of Hudson Hope. Charlie lake is north of Fort St. John, and Cardinal (formerly called Bear) lake lies a few miles west of Peace River.

To the far north is Hay lake, a very shallow depression surrounded by extensive flats on which abundant growths of wild hay prevail. On the Caribou plateau a number of good sized lakes are reported. It is said that deep, clear water is found in them and that they are well stocked with fish.

**Heavy Mantle
of Fertile Soil**

A heavy mantle of fertile soil covers the whole country. Practically no outcrops of rock in place occur, and surface boulders are found in limited areas only. The predominating soils are clay and sandy clay loams. A covering of black humus is generally prevalent, especially in the Fort Vermilion district. The soil on the whole is typical of the Western Canadian plains.

Soil classification surveys have been made by officers of the Department of the Interior over several extensive areas, especially in the Peace River block. A summary of the findings of some of these surveys might be quoted as illustrating the general nature of the soils. The sections referred to are fairly

typical though there is probably more clay and muck and less sand in the easterly and northerly parts.

In the Pouce Coupe district an examination was made of an area slightly exceeding 1,000 square miles. Predominating types of soils were observed and the respective areas over which they prevail were measured. These various soils and the proportion of area covered by each reckoned as a percentage of the whole area are as follows: clay, 4 per cent; clay loam, 35; loam, 3; sandy loam, 40; fine sandy loam, 12; sand, 5; peat and muck, 1 per cent.



WELL BROKEN LAND

This piece of newly broken land is typical of the extensive improvements that are converting wild lands into grain fields.

On the opposite side of Peace river, in the Fort St. John district, an examination of another area also slightly exceeding 1,000 square miles showed the following results: clay, 14 per cent; clay loam, 35; sandy loam, 14; fine sandy loam, 21; sand, 10; peat and muck, 6 per cent.

**Soils of
Wooded Areas** Members of the Faculty of Agriculture, University of Alberta, have made further studies, particularly respecting soils in wooded areas. Their investigations indicate that the top layer of black humus is, as a rule, more shallow there than on the prairies, and in many instances it has been burned off. Such soils are more inclined to be acid in reaction and generally contain a smaller amount of phosphorous. Though capable of producing fair to good crops, especially of legumes, in their present state they will give their best results following applications of phosphorous and lime. Marked improvement in such soils through tillage and fertilizing are in striking evidence in the Falher district.

**No Alkali
Shown by
Analysis** A sample of soil taken from the prairie of Pouce Coupé and analysed by officers of the Department of Lands, Victoria, British Columbia, furnished the following results: moisture, 2·8 per cent; loss by ignition, 8·2; insoluble, 77·61; oxide of iron, 3·5; alumina, 5·7; lime, 0·6; potash, 0·81; phosphoric acid, 0·2; nitrogen, 0·44; alkali, none.

LAND SETTLEMENT

Agriculture is the fundamental industry of the Peace River area. Its development is making a prosperous country out of a wilderness. Other industries of importance will doubtless appear in time but the cultivation of the soil will probably always predominate.

When in 1905 the Dominion Government made of its western territories the two new provinces of Saskatchewan and Alberta it retained the crown lands and natural resources. These are administered from Ottawa, chiefly by the various branches of the Department of the Interior. Hence the disposal of lands in the Peace River country is under the administration of federal and not provincial officers. The Peace River block of British Columbia was turned over to the Dominion before active settlement began in these parts. Negotiations are now under way for the return of these lands and resources to the respective provinces.

**Two Dominion
Land Agencies**

For the convenience of land seekers, settlers and other interested parties the Government maintains a number of local offices. The Peace River country is divided, for these purposes, into two Dominion Land Agencies, namely Peace River and Grande Prairie. Each is in charge of an agent who is authorized to give immediate attention to the disposal of Dominion lands, the control of Crown timber, and the recording of mineral claims.



HOME OF GEORGE ROBERTSON, GRANDE PRAIRIE

This attractive home illustrates the success of horticultural endeavours.

The Peace River Land Agency includes: all the territory in Alberta west of the Fifth meridian of Dominion land surveys and north of Peace river; all between the Fifth and Sixth meridians south of Peace river and north of township 68 except townships 69 to 84, both inclusive, in ranges 1, 2 and 3, and townships 69 to 73, both inclusive, west of range 20; and in British Columbia that part of the Peace River block north of the river. The office for this agency is located in the town of Peace River and there are sub-offices at High Prairie, Donnelly, Fort St. John, and Fort Vermilion.

The Grande Prairie Land Agency comprises: townships 61 to 73, both inclusive, from, and including, range 21 west of the Fifth meridian, to the Sixth meridian; all territory north of

township 60 and south of Peace river lying between the Sixth meridian and the Alberta-British Columbia boundary; and, in British Columbia, that part of the Peace River block south of the river. The office for this agency is located in the town of Grande Prairie and there are sub-offices in Spirit River, Beaverlodge, Pouce Coupé and Fort St. John.

**Settlement
Came with a Rush**

Before the year 1912, a few scattered pioneers only were to be found engaged in farming in the Peace River country. As mentioned before, the census of 1911 credited the whole district with a total population, white and native, of less than two thousand. Commencing about these years, however, a steady stream of settlers moved northerly and quickly took possession of the choicest prairie lands. Surveyors worked the year round to keep ahead of the rush. Before the outbreak of the Great War thousands of homesteads had been filed on, and several thriving villages were springing up.

Even during the war years settlement continued. Immigration from Europe having been suspended, the district received its newcomers for a time almost entirely from the older settled parts of Canada and various states of the adjoining Republic. Then came many returned soldiers, certain lands having been set apart for their exclusive choice. The country thus received an exceptionally high percentage of English-speaking people; British subjects of French extraction also accounted for a fair proportion. Very few undesirables have penetrated this new territory.

**Who may make
homestead entry**

Every person who is the sole head of a family, and every male who has attained the age of 18 years and is a British subject, or declares intention to become a British subject, is entitled to obtain entry for a homestead to the extent of one quarter-section, on payment of the entry fee of \$10. Application for homestead or soldier grant entry may be made either at the Land Agency for the district in which the land is situate, or at the office of the sub-agent authorized to direct the business of the district.

Some interesting particulars regarding the land situation are shown in the following statement.

PEACE RIVER COUNTRY—LAND SITUATION

(As at January 1, 1928)

DETAILED STATEMENT OF SURVEYED AREAS IN THE PEACE RIVER AND
GRANDE PRAIRIE LAND DISTRICTS

Particulars	Land Agency		Total
	Peace River	Grande Prairie	
	Acres	Acres	Acres
Area surveyed.....	7,000,000	3,700,000	10,700,000
Area finally disposed of.....	545,000	786,000	1,331,000
Area entered for or reserved (not including Indian and Forest reserves).....	701,000	432,000	1,133,000
Area under grazing leases.....	96,000	87,000	183,000
Area under timber berths.....	133,000	142,000	275,000
Area available for homestead entry.....	5,400,000	1,920,000	7,320,000
*Area under petroleum, gas and coal mining.....	980	3,537	4,517

*Petroleum, gas and coal mining leases do not hold the land against entry.

**Several
Local
Communities**

A sparse settlement scattered over so extensive an area has naturally given rise to several more or less distinctive communities. As the country fills many of these will merge into each other. Others, having more sharply defined boundaries, will retain their identity longer. No fixed boundaries can be assigned to such districts. Even their designation is more or less arbitrary but for purposes of more detailed description in subsequent pages the following classification has been made:—

PRINCIPAL SECTIONS OF SETTLEMENT

District	Land Agency	Province
Lesser Slave Lake.....	Peace River.....	Alberta.
High Prairie.....	".....	"
McLennan-Donnelly.....	".....	"
Peace River.....	".....	"
Dunvegan-Waterhole.....	".....	"
Spirit River.....	Grande Prairie.....	"
Grande Prairie.....	".....	"
Beaverlodge-Valhalla.....	".....	"
Pouce Coupé.....	".....	British Columbia.
Fort St. John.....	Peace River.....	"
Hudson Hope.....	Peace River and Grande Prairie.....	"
Sturgeon Lake.....	".....	Alberta.
Battle River.....	Peace River.....	"
Fort Vermilion.....	".....	"

GRAIN GROWING

Long before the agricultural possibilities of the Peace River country were conceded by a skeptical public to be worthy of consideration the missionaries and traders at Dunvegan, Shaftsbury and Fort Vermilion were growing annually excellent crops of spring wheat. This cereal matured fully, ripened early, and yielded more bushels to the acre and more pounds to the measured bushel than the average wheat crops of the more southerly plains. At Shaftsbury and Fort Vermilion small mills ground the wheat into flour which was used locally or sold to the northern trade.

For many years, while admitting these successes, critics declared that cereals could be grown successfully in the comparatively restricted bottom lands of the valley of the Peace only, and not on the extensive plains above. Experience has proved otherwise. While, as on the plains farther south, the danger of frost is not entirely absent, and some localities are more subject to danger from this source than others, the country as a whole can be truthfully classed as a grain-growing region.

Wheat the Leading Cereal

One prominent and successful Scottish-Canadian farmer, after fifteen years' residence and experience in grain growing on the plateau, advocates a straight wheat-growing policy. Taken year in and year out, and considering the beneficial effects following the clearing up of the land and the introducing of rapid ripening varieties of seed, wheat growing will predominate, doubtless, in the country at large.

The first crop in a new district is usually oats, but already spring wheat has taken the lead in the Peace River country. Barley takes third place but is not nearly so extensively grown as either wheat or oats, though it does well. Commenting on these crops the Superintendent of the Beaverlodge stations remarks, "In good years, yields of forty, fifty and even sixty bushels of wheat occasion no great surprise. As an average perhaps, twenty to twenty-five might be near the mark. The Garnet variety is reasonably sure of maturing on the higher lands. Oats average about thirty to thirty-five bushels on plowed stubble, and sixty to seventy on breaking or fallow."

**Bumper Crops
in 1926-27**

The Peace River country was favoured in 1926 and 1927 with two of the most bountiful harvests ever garnered in any grain-growing area.

Not only were phenomenal yields per acre recorded on every hand, but the quality of cereals of all descriptions was of the highest, as attested by the capturing of the world's sweepstakes in wheat and oats. Numerous instances of remarkably big yields have been vouched for by responsible parties and further supported by affidavits of the growers, of which the following are fair examples.



A FIELD OF WHEAT NEAR BEAVERLODGE

Peace River wheat won the world's championships in 1893 and in 1926

In 1926, a Grande Prairie field of 15 acres yielded 1,050 bushels of wheat, an average of 70 bushels per acre. A field of new breaking in the same district threshed 61 bushels of wheat to the acre. A Valhalla Valley farmer secured 2,110 bushels of wheat from 31 acres, an average of 68 bushels per acre. Near Niobe 6,400 bushels of wheat were threshed from a field of 150 acres and over 5,000 from another one of 110 acres. In 1927, a field of 22 acres near Rolla yielded 1,596 $\frac{1}{2}$ bushels of Red Bob wheat weighing 64 pounds to the bushel. On a basis of 60 pounds to the bushel this yield averaged 72- $\frac{2}{5}$ bushels per acre. All this wheat graded No. 1 or No. 2 Northern and carried a very high protein content.

Equally spectacular yields were reported also from Pouce Coupé, Spirit River, Waterhole, Peace River, High Prairie, Fort Vermilion and other sections. Oats running well over 100 bushels to the acre were quite common. Barley, peas and rye, though not so extensively grown, likewise gave heavy returns.

Experimental Plot Yields

Heavy yields are reported from the experimental plots on the Beaverlodge station. These have been obtained from areas from which the border drills were removed before harvest, the yields being thus obtained from the portions growing under field conditions of competition, with no advantage over fields save that weeds are handpulled as may be required. Moisture determinations of the grain have been made during the past two years and the yields reduced to a basis of clean, dry grain with a twelve per cent moisture content. - (The legal limit for dry grain is 14.4 per cent.)

EXPERIMENTAL PLOT YIELDS, BEAVERLODGE

Cereal	Number of Varieties	Yields in Bushels per acre ¹
1926		
Spring wheat.....	9	From 55 $\frac{1}{4}$ to 68 bush.
Winter wheat.....	1 (Turkey Red)	60 "
Winter rye.....	1	47 "
Oats.....	12	" 288 $\frac{3}{4}$ " 315 $\frac{3}{4}$ "
Barley.....	7	" 67 $\frac{1}{2}$ " 93 $\frac{1}{2}$ "
Peas.....	5	" 52 " 58 "
Common buckwheat.....	1	45 "
Premost flax.....	1	16 $\frac{1}{2}$ "
1927		
Spring wheat.....	5	" 42 $\frac{3}{4}$ " 60 $\frac{1}{4}$ "
Oats.....	5	" ² 76 " 117 $\frac{1}{2}$ "
Barley.....	6	" ² 62 $\frac{1}{2}$ " 74 $\frac{1}{2}$ "
Peas.....	3	" 40 " 52 $\frac{1}{4}$ "
Common buckwheat.....	1	25 $\frac{1}{2}$ "
Premost flax.....	1	18 $\frac{1}{2}$ "

¹ To nearest quarter. ² Hulless. ³ Banner.

Wins World's Championships

Wheat and oats grown in the Peace River country won the world's championships at the International Live Stock Exposition and Grain and Hay Show held at Chicago in 1926. What is more remarkable both wins were made by one exhibitor, the first time on record, namely by Herman Trelle of Wembley, whose farm is located near Saskatoon lake in the Grande Prairie

district. His wheat, Marquis, weighed officially 65.6 pounds per Winchester bushel, and his oats 49 pounds. By Canadian standards the wheat weighed over 71 pounds and the oats about 54 pounds to the measured bushel. These were the heaviest oats ever exhibited at an international contest.

Another farmer, Robert Cochrane of Grande Prairie, won third place in timothy seed at the same show. Both men had figured in wins before, Trelle having won third place in wheat in 1923, and Cochrane third place in timothy seed in 1924, at the Chicago internationals.

In 1927, Trelle again won the world's championship in oats, also reserve championships (first prizes) in hard red spring wheat and white field peas, while Cochrane moved up one step by winning second place in timothy.

At the Alberta provincial seed fairs in 1927 and 1928 Trelle won a long list of prizes on exhibits of wheat, oats, peas and potatoes, and in 1927 Cochrane won first prize on timothy seed.

The winning of both the world's wheat and oat crowns in 1926 was hailed, rightly, as a remarkable feat for a new country lying far north of most of its competitors, but it occasioned no great surprise to those who had followed its development. It was the second time that a Peace River grower had been made wheat king. In 1893 the Reverend Gough Brick, an Anglican Missionary, won a similar honour with a sample of wheat grown in connection with his mission at Shaftsbury, a few miles upstream from Peace River.

**Should
Judge by
Averages**

While mention has been made of the splendid crops of 1926 and 1927, the startling yields of experimental plots and the gratifying wins of championships in grain competitions, the prospective settler should not expect these feats to become common occurrences. Poor years must be figured on as well as good ones. The performance of the country over the longest term of years of which records are available, and the gradual trend of affairs should rather be taken as a guide in making future estimates.

The following long-term yields are submitted by the Beaverlodge station:—Marquis wheat, 13 years' average, $36\frac{3}{4}$ bush.; Victory oats, 12 years' average, $89\frac{1}{2}$ bush.; O.A.C. 21 barley, 12 years' average, $41\frac{1}{2}$ bush.; Arthur peas, 13 years' average, 24 bush.; Premost flax, 10 years' average, 13 bush.; Common buckwheat, 3 years' average, 31 bush.; Turkey red winter wheat, 10 years' average, 26 bush.; winter rye, 10 years' average, $40\frac{1}{2}$ bush.

**Crop Estimates
Show Expansion**

It is extremely difficult to arrive at any satisfactory estimate of the yields of grain in so large and scattered an area where there is no adequate organization for the checking up of returns. The following statement has been prepared from the most reliable sources of information available, but it must be considered approximate only:—

PEACE RIVER COUNTRY

*PRINCIPAL CEREAL CROPS, 1920 AND 1926-27 (ESTIMATED)

Year	Wheat (bush.)	Oats (bush.)	Barley (bush.)	Rye (bush.)
1920.....	453,490	2,507,550	216,956	13,844
1926.....	5,289,000	4,934,000	480,000	72,000
1927.....	6,946,000	6,841,000	494,000	109,000

* Dominion Bureau of Statistics.

The extent of the grain business of a district is reflected in some measure by the elevator situation along its railroads. The following statement contains a list of the country elevators on the Edmonton, Dunvegan and British Columbia railway north of Athabaska river, and on its branch line, the Central Canada railway.

GRAIN ELEVATORS, PEACE RIVER COUNTRY

(as at January 1, 1928)

Railway	Station	Number of Elevators	Total Capacity
			Bush.
E.D. & B.C....	Enilda.....	1	35,000
	High Prairie.....	2	70,000
	Donnelly.....	2	70,000
	Falher.....	2	70,000
	Girouxville.....	1	35,000
	Wanham.....	1	35,000
	Rycroft.....	2	70,000
	Spirit River.....	3	105,000
	Sexsmith.....	5	175,000
	Clairmont.....	5	175,000
	Grande Prairie.....	3	105,000
	Dimsdale.....	1	35,000
	Wembley.....	4	140,000
	Nampa.....	2	70,000
C.C.....	Roma.....	1	35,000
	Grimshaw.....	2	70,000
	Berwyn.....	2	70,000
	Brownvale.....	1	35,000
	Whitelaw.....	3	88,000

Total: 19 stations, 43 elevators, 1,488,000 bushels.

The ownership of the 43 elevators listed is divided as follows:—United Grain Growers, Ltd., 13; Gillespie Grain Company, 8; Alberta Pacific Grain Company, 6; Alberta Pool Elevators, 6; Security Grain Company, 5; Northern Grain Company, 1; Midland Grain Company, 1. The capacity of the elevators is 35,000 bushels each, with the exception of one of 18,000 bushels capacity, at Whitelaw.

**Large Exports
of Grain**

For several years prior to 1926 the Peace River country was exporting wheat, oats, barley, flax and rye in considerable quantities. Country elevator shipments from points on the Edmonton, Dunvegan and British Columbia railway from September 1, 1923, to July 31, 1924, included over two million bushels of wheat and nearly a million and a quarter bushels of oats. The crop of 1926, however, set an entirely new pace. From August 1 to December 31 of that year, and from points on the railway north of Smith and thus entirely within the Peace River country, the exports included 1,845,525 bushels of wheat and 286,601 bushels of other grains. These figures were reached with the initial movement of the crop merely under good headway. The entire grain shipment for the crop year ending July 31, 1927, from all points on the E.D. & B.C. and C.C. railways was in excess of five and a half million bushels.

Formerly export grain from Edmonton was shipped to the head of the Great Lakes. Now a large proportion of it goes by way of the Canadian National railway westerly through the Yellowhead pass and thence to Vancouver. Since the Panama canal has been opened to ocean commerce this Pacific port has become an important grain depot and Prince Rupert is following its example. The haul from Edmonton to Vancouver or Prince Rupert is considerably shorter than from Edmonton to Fort William or Port Arthur, the rate is lower and the logical movement of Peace River export grain is westward. More favourable rates have also been obtained on the Edmonton, Dunvegan and British Columbia railway of late years so that now the Peace River grain grower is in a position to operate at a profit. The rate on grain in carload lots, for example from Grande Prairie to Vancouver is 28 cents per 100 pounds, and from Peace River, 26 cents.

**Future
Outlook Good**

Some of the most serious obstacles with which the grain grower has had to contend are frost, drought, grasshoppers, distance from railway and high freight rates. These, viewed in the light of the experiences of other pioneer districts, do not appear insurmountable. On the other hand rust is unknown, hail is rare, and gophers, which do great damage to growing crops in older sections, are not found here.



READY FOR THRESHING

A typical field of grain in stook in the High Prairie district.

The danger of frost is largely disappearing following the clearing of the land and the introduction of earlier strains of seed. Dry farming methods can be adopted to successfully cope with the occasional dry seasons that occur in the upper part of the district. Grasshoppers have been practically exterminated. The improvement of highways and local extensions of the railroad make marketing more feasible. Freight rates are already fairly reasonable. Eventually more direct outlets to the Pacific coast are bound to be provided.

MIXED FARMING AND RANCHING

The agricultural industry of the Peace River country may be divided roughly into three main classes, namely, straight grain growing (principally spring wheat), mixed farming, and ranching. Of these three classes the average prospective settler

will be interested mostly in mixed farming, which includes to a certain extent both the others as well. For a time the new settler of limited means may depend on the grain his breaking produces for his cash revenue, and may even trap or work out in his spare time to augment such revenue, but as soon as circumstances permit he will fortify his position by accumulating some domestic animals and poultry and broadening the range of his field crops.

**A Factor of
Safety**

The mixed farmer plays safe by having more than one string to his bow. With a variety of field crops he is reasonably sure of returns in one form or another. Should his oats fail to mature they still make excellent "green feed" on which horses and cattle will thrive. If his wheat is damaged by frost it can be fed to hogs or poultry and eventually made profitable. A very dry year favours poultry, especially turkeys. A wet one will stimulate the alfalfa and hay crops and thus favour the dairy cow. A drop in the price of one commodity is sometimes coincident with a rise in another. A well-balanced mixed farm is better able to cope with emergencies and to command ready cash than more exclusive undertakings.

**Wide Range
of Products**

The field cereals of the mixed farmer consist principally of spring wheat, a little winter wheat, oats, barley, winter rye, which is quite hardy, and, in favoured sections or years, field peas and buckwheat. Domestic hay and fodder crops are replacing or augmenting the natural supply of wild hay. It has been found that western rye and brome grasses, timothy, alfalfa, sweet clover, sunflowers, and, in the Fort Vermilion district, even corn can be successfully grown. Field roots, especially sugar beets and turnips, do well in the Fort Vermilion district and sometimes throughout the whole country.

Horses, cattle, sheep and swine are raised profitably by the mixed farmer. Though horse breeding for export purposes has not been extensively pursued, the health of the horse is said to be exceptionally good, and colts raised in the Peace River country are much in demand for the local trade. A Short-horn bull, bred by John Lamont, of Berwyn, captured the Grand Championship at the 1927 Calgary Spring Show. Sheep raising is also in its infancy, although a few farmers who have tried it report good success. Lack of adequate fencing probably accounts for the small showing.

Nearly every mixed farmer has a varied poultry yard and a thriving kitchen garden. These are favourite show places in the Peace River country. A few settlers are now keeping bees with gratifying results. In 1926 the Beaverlodge station had a 550-pound colony that made a 24-hour net increase of $20\frac{1}{2}$ pounds of honey. A few farmers who are convenient to towns are specializing in market gardening. Fur-farming is another side line that has made its appearance.

Marked Success in Dairying Dairying has been the salvation of many small farmers and beginners. In cream the mixed farmer is able to ship a concentrated product and to secure a steady cash revenue distributed throughout the year. Five creameries were established in the Peace River country, besides one at Westlock to the south. The five were situated in Falher, Berwyn, Grande Prairie, Valhalla and Pouce Coupe. In 1925 they produced 410,426 pounds of butter, valued at \$143,873. Unfortunately the Falher creamery was destroyed by fire in 1927. The Peace River country also makes considerable dairy butter as well as shipping some cream to Westlock.

Profit in Hogs and Poultry Perhaps the hog has played as important a part as the dairy cow in saving many a farm when untimely frosts had injured the grain. Since it could be reared on alfalfa or other easily produced fodder and fattened on damaged wheat it enabled its owner to turn a loss into a profit. Hogs thrive well in the Peace River



"MORTGAGE LIFTERS"

A few of the hogs that are being profitably raised by the mixed farmer in the Peace River Country

country. They command a ready market and good, steady prices at Edmonton. The cost of shipping (live) from the end of steel at Wembley or Whitelaw, including freight, feed en route, insurance and all selling charges amounts to about one dollar per 100 pounds, which is very reasonable. Shrinkage does not usually exceed three or four per cent.

Poultry, especially turkeys, thrive except in areas contiguous to woods where coyotes prey heavily upon them. Under the direction of provincial agricultural officers community "kills" are held at various centres in the fall or early winter. The birds are killed, plucked, graded, packed and shipped collectively under supervision. In 1925 the "community" products, comprising the major portion of the whole poultry crop, were sold in bulk to Seattle buyers and in 1926 to Chicago firms. The latter shipment consisted of five carloads of dressed poultry, principally turkeys. The demand for Peace River turkeys is now so keen that the production of 1927, the largest on record, was disposed of readily at prices ranging from 30 to 35 cents per pound.

Ranching The Peace River country is not a wide open range in the same sense that southern Alberta formerly was. True, there are large tracts of good grazing lands where the growth of native grasses and legumes is quite prolific, but there is a tendency for such bottoms to run out in a few years. Moreover the fact that so much of the whole area is suitable for grain growing or mixed farming decrees that single extensive tracts will not be allowed to remain unbroken.

**Shelter and
Feed for Winter** The winter seasons are more severe than in southern Alberta. While range cattle run out all winter and get along very well without being stabled and stall fed they do require rough shelter of some sort and a fair amount of feeding, depending on the depth of the snow. Open sheds are suitable for all stock except milch cows, but half-way measures of feeding will not answer. Horses are much better able to forage for themselves.

By actual experience it has been found that the average amount of hay required for winter feeding throughout the whole country is three tons per head of adult cattle. Slough grass is widely used for this purpose. The numerous natural meadows of the district are usually dry enough during August and September to be cut. Yields as high as four tons to the acre have been gathered from this source in the Fort Vermilion district. Peavines and vetches are more relished by both horses and cattle. They are widely distributed and make a relishing

mixture with slough hay, but are killed with the first heavy frost. Being annuals they cannot reseed themselves if cropped before maturity and consequently soon disappear.

Upland grass does not yield as well as slough grass, and the bottom may require cleaning up before a mowing machine can be operated. It makes better hay, however, and in wet years is very much in demand. Burnt-over scrub land quickly grows up with grass, and ranchers are usually able to provide ample cutting grounds by doing a little preliminary clearing and burning.



A HAY-MAKING SCENE

Cutting a mixture of sweet clover and Brome grass in the Grande Prairie district.

Permits may be obtained for cutting hay on vacant Dominion lands on payment of small fees to the local agent. Assistance in hay-making is not difficult to obtain. The homesteaders and small farmers of the vicinity are usually only too glad of the opportunity to earn a few dollars. The hay-making season may be extended throughout the months of August and September.

Seeds of several varieties of grasses and legumes are ripened locally. Robt. Cochrane, of Grande Prairie, is one of the largest producers of timothy seed in North America. Reference to his successes at international exhibitions was made in a preceding section. Alfalfa seed, though a precarious crop, gave good yields for four successive years on the experimental substation at Beaverlodge. Ten bushels per acre were obtained from rows in 1925, of which eight bushels graded No. 1 at the Dominion Seed Laboratory, Calgary.

**Ranchers
Widely Located**

Ranching has been undertaken at various points throughout the country, but the localities most favoured are those contiguous to Fort St. John and Fort Vermilion. Both these districts are reached by means of water transportation up and down Peace river respectively. The most serious disadvantage with which the rancher has to contend is lack of direct transportation facilities to market and a long haul. Recently a very low rate on the river has been declared by the steamboat company. The majority of ranchers run cattle only. Comparatively few horses and sheep are found on Peace River ranges.

In the Fort St. John district the ranching country is broken and hilly. Chinook winds often keep the hillsides bare all winter. However, much of the land is gravelly and dry, and the making of hay is sometimes a problem. In the Fort Vermilion, Keg River and Hay Lakes districts constant winter feeding is imperative. Offsetting this is the fact that the natural hay supply is abundant.

**Country Favours
Small Ranches**

Considering the Peace River country as a whole it is evident that grain growing and mixed farming with stock-raising on small scale operations will prevail. There will be, probably, more horses, cattle and sheep raised eventually by the combined efforts of small farmers than if the country were given over to ranching alone. The conditions of winter feeding and marketing appear to favour the small holding rather than the more extensive and less intensive ranch.

HORTICULTURE AND HOME-MAKING

The Peace River country is destined to be a land of permanent homes. Its population will be fixed and deep-rooted, as in all other thriving agricultural regions throughout the world. While, as a rule, the first attempts of the pioneer at home-making are exceedingly limited and simple, yet there are certain early measures that can be adopted to great ultimate advantage. The principal of these are the careful selection of a building site and the provision of a shelter-belt of suitable shrubs and trees. Because of the level, open nature of most of this area, together with its northerly latitude, horticulture and home-making are particularly co-ordinated.

It is demonstrated already beyond question that attractive homes with pleasant gardens are possible in this country. In order to permit as wide a growing range as possible it is well

that the home be established on a comparatively frost-safe site. If protection from an adjacent body of water cannot be had, then an elevation, and particularly an elevated slope is very desirable. On such a site, potatoes, flowers, and other tender plants will often escape an untimely frost that might cut short their existence in hollows or on flats, as the records of the Beaverlodge station, along with a mass of other evidence very clearly shows.

If natural shelter is available advantage should be taken of it, but the precaution should also be taken to plant a belt to supercede it when the native trees commence to die. If no



HOME OF MRS. M. THOMPSON, BEAR LAKE

Peace River homes are becoming increasingly noted for their extensive garden and horticultural decorations.

convenient shelter exists a wind-break should be planted at the earliest possible date. Convincing proofs of the wisdom of such procedure are to be seen at various points throughout all parts of Western Canada.

Suitable

Trees and Shrubs

Horticultural notes from the Beaverlodge station contain the following remarks:—

Good results have been secured from material sent out by the Dominion Forestry Nursery Station, Indian Head, the species including the Russian poplar, Laurel and other willows, Manitoba maple, caragana and green ash. The native balm of Gilead is also serviceable. Native white spruce has been successfully transplanted by the few who have observed correct methods. Scotch pine and Jack pine received from Indian Head have started nicely. Snow-shoe rabbits are very fond of the evergreens, particularly the Scotch pine, and in some winters protection with poultry netting or by other means may be called for. Other trees that have already been tried with some

measure of promise are the elm and the Manitoba scrub oak. Birch is native and will doubtless be serviceable for planting, while even basswoods have come through their first winter (a mild one) unscathed.

Among shrubs, three thoroughly dependable ones are the Chinese lilacs, Tartarian honeysuckle and caragana, of which latter four species have been tried. The common lilac appears to succeed fairly well when sheltered. Mountain ash is native in favoured locations. The Japanese rose (*Rosa rugosa*) is quite hardy, while tea roses and Crimson rambles have been grown in certain instances. Wild honeysuckle, dogwood, snow-berry, dwarf birch, spirea arguta (snow garland), Russian olive, sumach, pambina and hazelnuts are all succeeding in an experimental way, while the saskatoon is suitable for hedges or ornamental clumps as well as for the production of fruit.

Vines and Flowers in Profusion

Vines that may be used to good effect are the hop, wild clematis, Virginia creeper, wild cucumber, canary vine and scarlet runner, the last three being annuals and the first-named perennial-rooted.

Among the bulbs and flowering plants of that general class, which have already been demonstrated are tulips, hyacinths, daffodils, scilla, crocus, chionodoxa, muscari, or grape hyacinth, iris, peony, and gladiolus. The last three are not strictly bulbs. They are exceptionally well adapted, however, and give better results for the amount of care required than do the true bulbs.

Perennials and biennials arranged in order of hardness and general suitability include pansy, lavatera, gypsophila, dianthus (pinks), hesperus (sweet rocket), Iceland and Oriental poppies, hollyhock, golden glow, scarlet lychnis, Canterbury bell, pyrethrum, and columbine.

Annual flowers in approximate order of proven adaptability and serviceability are thus listed by the Beaverlodge station:—antirrhinum (snap dragon), phlox, stocks, asters, gaillardia, nemesia, shirley poppy, schizanthus, salpiglossis, viscaria, calendula, annual lavatera, nemophila insignis, candytuft, cosmea, nicotiana, alyssum, arabis, sweet sultan, dimorphotheca, aretotis grandis.

Fruits, Berries and Vegetables

Sandcherry-plum hybrids have been matured in favoured locations, while small seedling apples have been ripened for three or four successive seasons by Mrs. Mary Thompson at her beautiful garden on the shores of Bear lake, in the Grande Prairie district.

Domestic strawberries, raspberries, currants, gooseberries and sandcherries are raised at the Beaverlodge station. The superintendent reports phenomenal yields of red currants. In 1924 he picked fifteen and a half pounds per bush from each of two kinds. With the exception of sandcherries, all these fruits were also grown successfully at the Fort Vermilion station.

The superintendent of that station reports excellent yields from twenty-three varieties of currants, including black, red and white species.

All the staple hardy vegetables can be grown without difficulty and even many tender varieties have been produced annually in favoured sections and occasionally over wider areas. The Experimental station at Beaverlodge has produced beans, table corn, ripe tomatoes and cucumbers in quantity, besides a long list of hardier species. That at Fort Vermilion reports a range including asparagus, Brussels sprouts, celery, carrots, cucumber, corn, cabbage, cauliflower, lettuce, onions, parsnip, parsley, pumpkins, peas, rhubarb, squash, spinach and sugar beets, all fully matured. Potatoes of excellent size, smoothness and quality have yielded as high as 450 bushels an acre at this station.

The scope of decorative horticulture in the Peace River country is surprisingly broad and the possibilities of the flower and vegetable gardens are beyond estimate. The Experimental stations have accomplished nothing that cannot be duplicated on the average farm or urban lot, a fact that is proven already by several striking examples. It is absolutely certain that with a discreet choice of location, intelligent planting and ordinary care, every Peace River farmer may, in time, develop a home quite as attractive as that of the average found in older settled countries.

MINERAL RESOURCES

No metallic deposits of note are known to exist in the Peace River country east of the mountains, but extensive areas are underlain with various non-metallic deposits. The principal of these are coal, natural gas, brine, gypsum, and possibly oil.

In the Rocky mountains and areas adjacent to the headwaters of the Peace, considerable quantities of metallic ores occur. Placer gold was discovered on Parsnip river in 1861 by prospectors who drifted north from the Cariboo gold fields. A year later similar discoveries were made on Finlay river.

Gold Found in Mountain Section

The discovery and exploitation of the famous Omineca fields followed quickly. The rich and easy diggings of the Omineca, which yielded about a million dollars' worth of gold in a few years, were soon exhausted. Numbers of miners then prospected down-stream. Several bars on Peace river were worked as far

as the foothills, and even beyond, but the pay gradually lessened till such industry became unprofitable. Fine gold has been carried downstream as far as Fort Vermilion.

Extensive bodies of gold-bearing quartz are known to occur in the mountain regions, and it is anticipated a lode-mining industry will develop in due course. It is also possible that placer mining by dredging and hydraulicking may be undertaken when improved means of transportation make such undertakings more feasible. Large veins of silver-bearing galena were found many years ago. More recently samples of limonite ore, a hydrated form of iron oxide, have been secured from a deposit of bog ore near the Halfway river west of Fort St. John. While the analyses of these were encouraging the extent of the deposit is not known to be of commercial importance. From time to time discoveries of other metallics are reported.

Extensive Coal Fields Seams of coal of excellent quality are exposed in Rocky Mountain canyon above Hudson Hope. A sample from this source gave the following analysis: moisture, 0.9; ash, 3.3; volatile matter, 18.5; fixed carbon, 77.3 per cent.

Coal measures also outcrop to the south of Pine river and on the headwaters of Smoky river. Coal of sub-bituminous quality has been found in the banks of the Peace below the town of Peace River, on Red Willow river and in other sections.

The best and most extensive coal fields are those on the headwaters of the Smoky and adjacent rivers. Commenting on them, Dr. Charles Camsell, Deputy Minister of Mines, Ottawa, says: "The areal extent of the fields and the high quality of the coal indicate that in this part of the Peace River district there is one of the most important coal fields of Western Canada."

A report on the Smoky River coal field by James McEvoy, mining engineer and geologist, contains the following comment: "Considered as a new source of coal supply, the principal fact about the Smoky-Sheep rivers area is that it contains a large tonnage of very high grade bituminous coal, one notable 14-foot seam grading in places, by analysis, as semi-anthracite."

A National Coal Reserve of about 550 square miles has been set apart in this district, but, owing to its present inaccessibility, it is not likely to be developed for a long while. Deposits within easier reach are sufficient to meet the needs of the Peace River country for many years.

**Natural Gas
and Oil**

Seepages of natural gas, high-grade crude oil and tar have been observed at various places from the foothills to Vermilion chutes. These suggest underlying reservoirs in the rocks below. Drilling to ascertain the presence and extent of such has been undertaken by a number of concerns during recent years.

Several wells were drilled in the valley near the town of Peace River. Depths ranging from 500 to 3,000 feet were reached. A little oil was found but salt water under extremely high pressure was encountered, which, getting out of control, proved disastrous to the undertakings. It is hoped that the adoption of better drilling methods and the finding of a more favourable location may produce better results.

Three wells were drilled in the Pouce Coupé district, one of which reached a depth of 3,057 feet. The supervisory engineer of the Department of the Interior reports that at a depth of 1,675 feet, a flow of ten million cubic feet of dry gas per day was secured, but that as an oil prospect the well was apparently abandoned in 1923.

Some drilling was carried out a few years ago near Fort Vermilion and near High Prairie, but the results were not made public. In 1926 rigs were drilling below Fort Vermilion and at the east end of Lesser Slave lake. It is understood that further attempts to locate oil are pending, as the Peace River field is believed by many to be promising.

**Gypsum, Brine
and other
Non-Metallics**

Below Vermilion chutes, beds of gypsum from ten to fifty feet in thickness are exposed on both banks of Peace river near Peace point. They extend along the river for a distance of fifteen miles, and tremendous quantities can be mined under most favourable conditions. Farther north are salt deposits and brine springs. It is considered possible that potash might be found with this combination.

Aluminum sulphate has been found in the banks of Little Smoky river near its mouth. While the occurrence as observed is small as to quantity the possibilities of larger and workable deposits are said by Dr. Allan, of the University of Alberta, to be promising. Red and yellow ochres are found here and there, being deposited about springs, the waters of which are charged with iron oxide, or in some cases manganese oxide. While the quality is usually high grade, the known quantities are small.

Sand and gravel suitable for concrete work, building construction and road making have been located at various convenient points. Clay suitable for the manufacture of common brick and tile is believed to be abundant, although only a couple of small plants have been established yet. Field boulders suitable for foundation work are found in some sections. Outcrops of sandstone and limestone in many cutbanks along rivers and streams suggest further sources of fundamental building material. The sandstones underlie much of the Peace River and Grande Prairie districts, and the limestones are found in the Fort Vermilion and northerly areas.

While all the mineral deposits of the country are still in an undeveloped state, it has been proved that coal, gas and gypsum are abundant. It is hoped that oil will be located in commercial quantities. The development of these, and other possible mineral deposits, will be prosecuted, doubtless, with the settlement and growth of the area.

TIMBER AND WATER RESOURCES

The principal commercial tree of the Peace River country is the white spruce. It is widely distributed, especially in the numerous valleys, and attains a sufficient size to produce logs of good sawing dimensions. Lodgepole pine is also an important species especially on burned-over areas where it readily establishes itself and grows rapidly, producing good saw material for ordinary construction purposes, as well as excellent material for railway ties, poles, fencing and fuel.

Black spruce, frequently associated with larch or tamarack, occurs in the swampy areas and although not growing as rapidly or to such large sizes as white spruce, it is a good wood for many purposes. The larch makes excellent ties, posts, poles and fuel.

Aspen poplar is the most prevalent tree species, being found in pure stands or mixed with white birch or the coniferous species. The facility with which it reproduces on burned-over areas accounts for its general distribution. Though small amounts of poplar are used for lumber its chief value is as fuel. It is also useful for fencing, building poles and other constructions which are of a temporary nature and where long life is not essential. Cottonwood of large dimensions is found frequently on the rich alluvial bottomlands of the valleys, but from a quantity standpoint is relatively unimportant. White birch is not at all prevalent, but where found it is useful as fuel and for purposes where a hard wood is required.



NATIVE WHITE SPRUCE

Some excellent stands of white spruce and other timber and pulpwoods are found in various parts of the Peace River country.

As a source of supply for building material, fencing, fuel and other local uses, this timber is a great boon to the country and since by far the greater portion of the area is covered to a varying degree with forests of some kind, the settler, except on extensive prairie sections, will be assured of an adequate local supply of wood for ordinary farm requirements.

The policy of the Dominion Government, which is to set apart as permanent forest reserves all non-agricultural lands capable of supporting tree growth and to provide for their maintenance in a forested condition, at the same time providing for the fullest utilization of the wood grown, guarantees the permanency of this marked advantage.

**Estimated
Supplies
of Timber**

No estimate of the forest resources of the whole Peace River region has been made, but between 1911 and 1914 the Dominion Forest Service conducted very general reconnaissance surveys covering 3,468,180 acres in the Peace River block in British Columbia, and about 23,000,000 acres in Alberta. These examinations indicated that about one-quarter of the area carried timber of merchantable size and one-third was covered with young growth of various ages. Since that time, however, severe forest fires have materially decreased the amount of merchantable timber in this region.

There is estimated to be in the Peace River area about 8,000,000,000 board feet of timber of kinds, size and quality suitable for the manufacture of lumber. Spruce constitutes about two-thirds of this material and lodgepole pine one-third, with relatively small quantities of poplar, white birch and larch in some localities. In addition there are perhaps 90,000,000 cords of wood which could be used for fuel, mine props, railway ties, posts, poles and other purposes. Of this about 70 per cent is poplar, 17 per cent lodgepole pine, 12 per cent spruce, and 1 per cent birch and larch.

In the tracts of merchantable timber the possible yield per acre varies between rather wide limits. On certain areas around Lesser Slave Lake are stands of spruce running up to 30,000 board feet per acre. Elsewhere throughout the district, particularly in the stream valleys, stands of 10,000 to 25,000 feet are fairly common. Taking the country as a whole, the exploitable forest will yield on the average the equivalent of 3,000 to 5,000 board feet per acre, including saw material, fuelwood and other timber of merchantable size. A large proportion of this timber, however, is at the present time inaccessible from the

standpoint of commercial operation, and will remain so until the country is settled and means of transportation are developed.

Young growth, covering millions of acres and requiring only protection from fire, is an asset of tremendous future value which will be realized when the country is opened up.

Several

Portable

Sawmills

Lumber, dimension material, laths and shingles are sawn from local timber at various points throughout all parts of the country. Some of the larger portable mills employ from ten to fifty men and export part of their cut to Boston, New York and other United States points. Smaller portable mills have been set up by enterprising lumbermen where sufficient timber adjacent to new settlements would warrant such action. Local retail prices are very reasonable. The settler may take it for granted that sawing facilities will be provided as fast as the demand arises if such are not already on the ground.

**Water power
situation**

Water-power is not so abundant in the Peace River region as in many other parts of Canada. Natural power sites and storage reservoirs are rare. Moreover, the Peace and some of its principal tributaries flow from mountain sources and, as a result, their volumes are very irregular, varying as much as fifty to one between high and low water, with the floods occurring during the summer months and the low water during the winter. This disadvantage might be overcome to some extent by the creating of artificial storage reservoirs. The maintenance of forest reserves in the headwaters regions will, at any rate, prevent a more exaggerated condition from developing, as would be the case if these areas were denuded of trees.

On Peace River there are two possible power sites, one at Rocky Mountain canyon, and the other at Vermilion chutes. No definite information is available respecting the canyon site, but engineers of the Dominion Water Power and Reclamation Service of the Department of the Interior, have investigated and reported on the chutes site.

**Rocky Mountain
Canyon Site**

The river flows through the canyon for a distance of 18 or 20 miles between high banks of sandstone and shale. The fall in this distance is said to be 270 feet. It is understood that, while a large block of power could doubtless be developed here, the undertaking would be costly. Moreover, there would be little or no market for the power for some time. A preliminary estimate places the minimum development at 81,000 or for six months during highest water, at 245,000 horse-power.

**Vermilion
Chutes Site**

At Vermilion chutes the river is a mile wide and its banks are both low. There is a drop of 30 feet in a distance of two miles. This occurs principally in two sections, the first or upper consisting of a half-mile of rapids and the second or lower being in the form of a fall of 13 feet over an abrupt limestone ledge. This fall is commonly known as the "chutes."



ROCKY MOUNTAIN CANYON

Extensive water-power developments are possible at this site and also at Vermilion Chutes, both on the Peace river.

The Department's engineers report that the continuous 24-hour power available at this site under conditions of ordinary minimum flow would amount to 24,500 horse power. For six months of the year it is estimated that 68,200 horse power would be available. Development here would involve a considerable investment and there is no immediate market for any large amount of power.

**Smaller
Developments
Possible**

There are a number of smaller rivers and streams in the district that might provide opportunities for small-scale undertakings, particularly if storage facilities were found. It is likely, however, that any opportunities that might be discovered would only be sufficient to supply purely general demands. At present no water power is being developed in the district.

**Domestic
and Farm Water
Supply**

On the whole the Peace River country has an adequate supply of water for domestic and farm uses, although there are sections where surface water is scarce. The underground supply appears uniformly reliable except in the McLennan district; in certain areas above Peace River it is found at depths ranging from sixty to three hundred feet. In the Fort Vermilion district the wells average from eighteen to forty feet deep.

GAME, FUR AND FISH

The big game animals of the Peace River country are moose, which are fairly widely distributed, and caribou and deer, which are scarce and found only in limited areas. In the mountain regions to the west there are some goats and grizzly bears. More interesting still is a large herd of bison, or buffalo as they are commonly called, roaming in a free state over a large plain bordering on the north bank of Peace river near its mouth. These are the survivors of the millions that once roamed over a third of the North American continent. They are protected by a rigid close season, and the area in which they are found has recently been set aside as a national park.

**Large Range of
Fur-bearing
Animals**

Fur-bearing animals have been the source of an important local commerce for a century and a quarter. In fact for a century the fur trade was the only industry of the country, and even today it is of no mean consequence. Many outlying posts receive in trade no other commodity. The principal centres of the trade are Peace River, Fort St. John, Hudson Hope, Fort McLeod (west of the mountains), Grouard, Keg River, Fort Vermilion, Hay River, and Red River.

Reports from the resident traders at these posts state that the principal fur-bearing animals are bear, black, brown, and in some districts the grizzly; coyote or prairie wolf; wolverine; lynx; fox, red, cross and silver; skunk; ermine or weasel; beaver; marten; otter; fisher; mink and muskrat. It is estimated that the yearly revenue derived from the furs of the Peace River country east of the mountains amounts to at least a quarter of a million dollars.

Game shore birds include the Canada goose, Sandhill cranes, ducks of several species, curlew and snipe. Land species are the prairie chicken, ruffed grouse or partridge, spruce

grouse and ptarmigan. The shore birds belong to the migratory species and their numbers fluctuate somewhat from year to year. Prairie chickens likewise appear scarce or plentiful according to the nature of the season. Grouse appear to be holding their own while the ptarmigan is a winter visitor from the mountains.

**Lakes Famous
for Whitefish**

The larger lakes of the district are noted for the abundance and excellent quality of their whitefish. Prior to settlement days an important winter fishing industry was established at Lesser Slave lake. The frozen fish were hauled by horse-drawn sleighs to Edmonton, for shipment by rail to eastern points. Since the advent of the railway the industry is prosecuted during certain restricted periods and areas in both summer and winter months with a summer limit of 650,000 pounds.

The winter fishing areas are in shallow waters and yield mostly coarse fish, the range of species including whitefish, pickerel, pike, suckers and ling. The whitefish, pickerel and pike are commercial fish. Whitefish and pickerel are shipped frozen, dressed or round. Pike are filleted at a local plant. The filleting of pike is a recent industry. There is a good market for the product in the United States, and the destruction of this species is of great benefit to the fishermen as the pike preys heavily on the more valuable commercial whitefish and pickerel.

Other lakes said to be well stocked with whitefish are Sturgeon, Moberly, Utikima (Whitefish), Peerless, Trout, and the lakes of the Caribou plateau. Lake trout are also reported in many of these waters. These fish are caught in nets for commercial purposes, but the trout will take either bait or troll. Whitefish from Sturgeon lake are sold locally during winter months.

Peace river furnishes a few fish, principally ling and gold-eyes. The muddy waters of the river during summer months practically place it out of the fishing water class.

**Game Fish in
Many Streams**

The Peace River country at large is not an angler's goal. However, on many of the head-water's streams in the mountains excellent fly fishing is obtainable. Such well known species as the Dolly Varden and Rainbow trout abound in great plenty. The favourite grayling trout is also found in these waters as well as in several plains streams, particularly some of those flowing into the easterly end of Lesser Slave lake and tributaries of the Wapiti and Little Smoky.

Game Administration The buffalo, migratory birds and commercial fish are under the jurisdiction of the Dominion Government. With these exceptions the provincial authorities of Alberta and British Columbia administer the game resources of the respective portions of the country falling within either province.

TRANSPORTATION AND COMMUNICATIONS

The Edmonton, Dunvegan and British Columbia railway was built to serve the Peace River country, being opened to general traffic in 1916. Commencing at Edmonton this line runs northerly to Athabaska river, which it crosses immediately above the mouth of Lesser Slave river. The first divisional point, named Smith, is located here and is distant from Edmonton some 136 miles.



TOWN OF PEACE RIVER

The E.D. and B.C. railway crosses Peace river at this point on the million dollar bridge shown above.

Swinging westerly the railway then skirts the south bank of Lesser Slave river and the south shore of Lesser Slave lake and continues beyond the lake to cross the High Prairie section of country. It then takes a more northerly course to the second divisional point, McLennan, 267 miles from Edmonton.

From McLennan the main line was built westerly, crossing Smoky river and reaching Spirit River at mileage 362, while a branch line known as the Central Canada railway was built northerly to Peace River, a distance of 48 miles. From Rycroft,

five miles east of Spirit River, a section of the main line was run southerly to Grande Prairie, a distance of 50 miles. Westerly from Spirit River a roadbed was graded some 55 miles to Pouce Coupé but, contrary to expectations, steel was not laid.

This was the extent of the system as constructed by private interests and later taken over by the Alberta Government as a result of its having guaranteed the bonds. In 1920 the Government leased the system to the Canadian Pacific Railway Company for a term of five years, and later extended the lease by one year. During this time an extension of the Central Canada section was completed westerly from Peace River, where a bridge had been erected at a cost of a million dollars, to a point called Whitelaw, a distance of 33 miles. Another extension from Grande Prairie was built westerly for a distance of 15 miles to Wembley. Plans have been announced by the Alberta Provincial Government for the building, during 1928, of a 15-mile extension westerly from Whitelaw and a 25-mile extension westerly and north-westerly from Wembley.

**An Efficient
Railway Service**

On November 11, 1926, the Provincial Government assumed full control of the road and entered into working arrangements with the Canadian National Railways for its traffic operation. Passenger trains to and from the Peace River country now depart from and arrive at the centrally located Canadian National depot on 101st street, Edmonton, twice a week. The run from this city to Peace River or Grande Prairie is made in less than twenty-four hours. Standard sleeping cars are operated between Edmonton and the ends of steel at Wembley and Whitelaw. Dining cars also are part of the equipment on the main line.

An efficient freight service is maintained. All stations are provided with loading and unloading facilities for grain, live stock, settlers' effects and other merchandise. Stockyards are located at the following points north of Smith: Kinuso, Enilda, High Prairie, McLennan, Donnelly, Falher, Girouxville, Belloy, Wanham, Spirit River, Sexsmith, Clairmont, Grande Prairie, Dimsdale, Wembley, Peace River, Roma, Grimshaw, Berwyn, Brownvale and Whitelaw.

**Boats on
Peace River**

The Alberta and Arctic Transportation Company operate the commodious stern-wheel steamboat D. A. Thomas on Peace river, from the opening of navigation, about the first of May till the end of September. Alternate trips are made usually from Peace River upstream to Hudson Hope and return, and down-stream to Vermilion chutes and return. About ten round trips on each course are made per season. A powerful gasoline boat is used when necessary as an auxiliary.

Regular passenger and freight rates are very fair and accommodation is good. Special tourist round-trip fares are sold at the Edmonton office. For the benefit of settlers adjacent to the river a special rate has been struck to enable them to ship their live stock and farm produce to Peace River at a very low cost. As a result the combined steamboat and railroad freight charges to Edmonton are not prohibitive.

**Highways,
Roads and Trails**

Roads throughout the settled parts of the Peace River area are in an advanced condition for a new country. They are not metalled, being merely turnpiked dirt roads, but a regular system of grading and dragging keeps the main highways in excellent shape for horse-drawn vehicles or motor cars except during prolonged wet periods. Many of the original trails have become leading highways, while the favourable surface of the country has permitted the easy construction of new ones as required.

The most serious defect in the road situation has been the lack of through connection with Edmonton. True, the old Athabaska and Lesser Slave trail was followed of necessity before the railway was in operation, but prior to 1926 it was always a trial for horse-drawn vehicles and never fit for use by motor cars. Old timers avoided that section between Athabaska (Landing) and the west end of the lake as much as possible by making use of a summer steamboat service or by following the ice during the winter months. The steamboat service was withdrawn following the advent of the railway, since when it has been difficult to gain access to the district by trail. Recently the Provincial Government has undertaken to provide a suitable route.

From Edmonton there is now a good road to Athabaska. The old section from Athabaska to Mirror Landing, which kept to the north side of Athabaska river, is being abandoned in favour of a new road under construction well to the south of the river. From Mirror Landing to the east end of Lesser Slave lake the old trail along the north bank of Lesser Slave river has been put into fairly serviceable condition, while that part along the south shore of the lake is being brought up to main highway standard.



BANKS OF PEACE RIVER

The River Boats give special rates for the transportation of Live Stock.

From High Prairie, Grouard, McLennan and Donnelly, cars may be driven to Peace River, Dunvegan, Spirit River, Grande Prairie, Beaverlodge, Hythe, Pouce Coupé and Rolla at any time of the year except when the snow is deep or during protracted spells of rainy weather. Radiating from these points are many miles of improved highways designated as market roads, which, though not quite up to main highway standard, are serviceable for ordinary traffic.

Wagon roads, trails and pack trails lead into all outlying sections. The Fort St. John and Hudson Hope districts are traversed by a wagon road from Dunvegan. The Fort Vermilion district still lacks highway connection with the upper parts of the district, but it has a network of passable wagon roads and trails to serve its local needs.

**Government
Telegraph
Service**

By the construction of a telegraph line from Edmonton to Peace River the Dominion Government early overcame that dread of isolation which might otherwise have kept many a settler out of the country. It is recognized that the farmer of today is a business man and requires means of speedy communication regarding his business affairs. The pioneer women also of the present times are equally appreciative of such service.

This line was extended well in advance of settlement to Dunvegan, Grande Prairie, Fort St. John and Hudson Hope, comprising in all 710 miles of line. It is operated by the Dominion Government, and, in conjunction with telephone services of the districts enables the bulk of the settlement south and west of Peace River to keep in touch with Edmonton and outside points. The following stations are maintained on this line: Edmonton, Halfway Lake, Athabaska, Mirror Landing, Faust, Grouard, Peace River, Waterhole, Spirit River, Grande Prairie, Beaverlodge, Pouce Coupé, Rolla, Fort St. John, Halfway River and Hudson Hope.

**Network of
Telephone Lines**

The Provincial Government has constructed and maintains a long-distance telephone system giving connection to a number of urban and rural systems which cover the more populous parts of the district. By working arrangements messages to and from Edmonton are repeated by the Dominion Government telegraph operators, thus giving an almost direct service with outside points.

**Splendid
Mail Service**

Mail is carried twice a week from Edmonton into the Peace River country by rail and distributed from the several stations by carrier to an extensive system of post offices. Post Office savings banks are established in the larger offices while nearly all offices issue and cash money orders and postal notes, or in certain cases postal notes only. Parcel post applies to all offices and is a great boon to settlers in remote parts.

**Aircraft
in the Field**

From Peace River aircraft have been used in exploratory work in the far north. During the years of the Fort Norman oil boom planes were flown from a base established near this town to the Mackenzie fields.

PUBLIC WELFARE AND SOCIAL LIFE

Life in the Peace River country is not beset with the privations, hardships and disadvantages commonly attributed to frontier districts. Educational facilities, religious advantages and freedom, recreational opportunities and business conveniences all combine to make living conditions and personal welfare uncommonly favourable for a new country.

Excellent Educational Advantages

The public school system of Alberta applies to all settled portions of the province, and provides free and competent instruction to all children.

The provincial Department of Education is very much alive to the child's intellectual and educational welfare. As soon as eight children of school age are assembled in any area approximately four miles square, a school district may be established. Suitable buildings must be erected and equipped by the district and the cost of operation is met by monies received from local tax levy and from Government grant. Qualified teachers carry out the work of inspection, as outlined by the department, under proper inspection and supervision.

The Peace River inspectorate of Alberta includes practically all the Peace River country except that portion falling in British Columbia. In this inspectorate, at the beginning of 1928, there were 133 school districts of which 120 had one-roomed schools. In the schools with more than one room there were 41 teachers. The enrolment of pupils was well over 3,000. Many of these schools are carrying out work in the higher grades.

In the Peace River block, as in other parts of British Columbia, the Government will establish a school in any locality, pay the teacher's salary, and aid in the erection of a school-house, provided that there are at least ten children of school age available for attendance. An average of six pupils daily will maintain a school after it is established.

The first schools in the Peace River block, three in number, were established in the autumn of 1915. Since that time there has been a steady growth in the school population, recent reports mentioning 20 schools in the district with a total enrolment of about 295 pupils. With the exception of Rolla, all the schools in the block are of the one-room type. At Rolla a two-room school is in operation and high school work is undertaken.

Religious Activities Anglican and Roman Catholic missions were established at early dates in the district. At Grouard, Shaftsbury and Fort Vermilion both churches and schools, with hospital services, were opened for the benefit of traders and natives. Churches have been erected, or facilities for worship provided, in every community of any pretense. In order of numerical strength according to the census of 1921, were Presbyterian, Roman Catholic, Anglican, Methodist, Lutheran and Baptist. Since the census date many of the Presbyterian and Methodist congregations have united to form part of the United Church of Canada. The Salvation Army maintains a corps in Grande Prairie.

Newspapers and Various Societies Two weekly newspapers are published in the district, namely the *Record* at Peace River, and the *Herald* at Grande Prairie.

There are agricultural societies at Berwyn and Waterhole north of Peace River, and at Spirit River, Lake Saskatoon and Grande Prairie south of the river, all holding annual fall fairs.

Fraternal societies, athletic associations, women's institutes and other organizations already are well established in many sections. Public and circulating libraries have made their appearance.

Sports and Entertainments The Peace River country is particularly well supplied with community halls which are the scenes of many social activities. The ever popular motion picture is no longer an innovation. Hunting, fishing, motoring, baseball, football, golf, tennis, skating, hockey, curling and skiing are popular forms of sport. Annual musical festivals are held at Peace River and Grande Prairie, and have been the means of encouraging music in all its branches throughout the country. Golf courses are found at Grande Prairie, Clairmont and Peace River. Ski towers are a feature of the Valhalla district.

Representation in Parliament The Peace River country sends one representative to the federal parliament at Ottawa and one to the provincial assembly at Edmonton.

Municipal Incorporations Of incorporated municipalities there were at the end of 1927, two towns, two villages, and five rural municipalities. These were Peace River and Grande Prairie, towns; Clairmont and Spirit River, villages; and the municipal districts of Peace, Fairview, Spirit River, Bear Lake and Grande Prairie.

Several live Boards of Trade are functioning in the country. These are found at Peace River, Berwyn, Grande Prairie, Spirit River, Sexsmith, Wembley, Beaverlodge, Valhalla, and Pouce Coupé.

**Thirteen
Branch Banks**

Five of the great banking institutions of Canada are represented. The Canadian Bank of Commerce has branches at Peace River, Berwyn, Wembley, Pouce Coupé and Rolla. The Bank of Montreal and the Imperial Bank of Canada each has a branch at Grande



A MOUNTED POLICE POST

The Peace River country is thoroughly patrolled by Dominion and Provincial Mounted Police Officials.

Prairie, and the Bank Canadienne Nationale has one at Falher. The Royal Bank of Canada has five Branches located respectively at Grande Prairie, Sexsmith, Spirit River, Waterhole and Grimshaw. There are also agencies of various other financial institutions including trust, mortgage, loan and insurance companies.

**Provision for
Care of Sick**

There are six small but creditable hospitals in the Peace River country, namely at Peace River (Cottage), Grande Prairie (Municipal), Grouard (Roman Catholic Mission), Waterhole (General), Fort Vermilion (St. Henry's), and Pouce Coupé, B.C. (Red Cross). Those in Alberta have been approved by the Provincial Depart-

ment of Health. They are conducted under departmental regulations, subject to inspection and entitled to provincial aid. The Pouce Coupé institution is equally well managed.

Provincial health nurses are located at Slave Lake, Wanhams and Halcourt, and the Department of Health is prepared to station others in outlying sections as warranted. In 1926 medical doctors were located in Peace River, Berwyn, Waterhole, High Prairie, Falher, Spirit River, Sexsmith, Grande Prairie, Wembley, Pouce Coupé, and Fort Vermilion.

LESSER SLAVE LAKE DISTRICT

The earliest and principal settlements in the vicinity of Lesser Slave lake spread out from the Hudson's Bay post and Roman Catholic mission at Grouard. Before the advent of the railway this village was a sort of mid-centre station between the Athabaska and Peace rivers. It was the upper terminus of steamboat traffic from the Athabaska, being located at the northwest extremity of the lake. From it a fairly passable wagon road ran on to Peace river.

Prior to the extension of the regular Dominion land system of survey to these parts, several pioneers had "squatted" on choice lands in the vicinity of Grouard. Their holdings were recognized by the Government and were laid out in irregular settlement lots, to conform as nearly as possible to the improvements made. Hence we find the following "settlements" in place of regular townships: Lesser Slave Lake, consisting of forty-one lots, and Big Prairie with thirty-five lots, both surveyed in 1901; and Heart River and Salt Prairie with forty lots surveyed in 1906. A total of 11,516.4 acres is included in these settlements. The land, as would be surmised, is the most favourable in the immediate district, and has been successfully farmed for many years.

Aside from these settlements there is little land under cultivation or suitable for immediate cultivation around the lake. The shores are low and marshy and subject to considerable flooding. On the south and west there are many extensive hay marshes. Beyond them the land rises in long irregular slopes to heights about two thousand feet above the level of the lake or nearly four thousand feet above sea-level. These elevations are known as the Swan hills. They are well wooded and nearly all are included in the Lesser Slave forest reserve. Several rivers and streams flow from these hills to

the lake and have a tendency to cut up what small areas of land, otherwise suitable for agriculture, are found on the lower elevations.

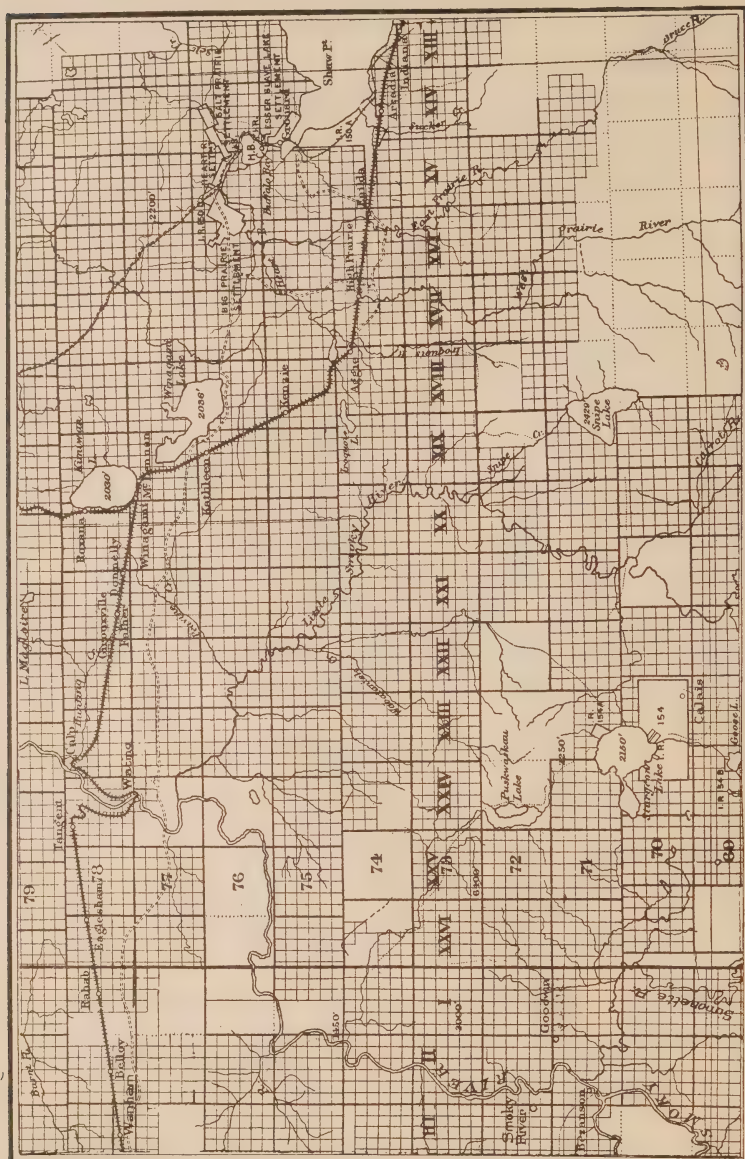
Northeast of the lake there is another but lesser elevation known as Marten mountain. It likewise is timbered and forms a separate part of the Lesser Slave forest reserve. North of the lake the land slopes up more gently. It is lightly wooded and rather wet and overlain with muskeg, but the soil is good, and it will be improved in time. Lesser Slave river flows from the east end of the lake to the Athabaska. The railway follows the low land between river and lake on the north and the Swan hills on the south. Several Indian reserves are located on the south shore of the lake.

Lesser Slave lake has long been famous for its yields of whitefish and fishing is still an important industry in which both whites and natives are engaged. Lumbering also is prosecuted to some extent as well as cattle raising, trapping, and, to an ever increasing extent, mixed farming. Some of the centres that show most signs of activity are Slave Lake, at the east end of the lake; Kinuso, at the railway crossing on Swan river, where several homesteads have been taken up; Driftpile and Arcadia. About thirty-five miles northwest of Grouard there is a little settlement at Utikumasis (or Whitefish) lake. A good wagon road has been constructed from Grouard to the railway at Enilda station and thence to High Prairie.

HIGH PRAIRIE DISTRICT

Fifteen or twenty miles directly west of Lesser Slave lake there is a very fine stretch of open or lightly wooded land known as High Prairie. Nearly all of it is drained by the East Prairie and West Prairie rivers, which flow into the lake, but as it extends well over the Athabaska-Peace divide, some of it is drained by the Little Smoky river, a tributary of the Smoky and in turn of the Peace.

As this section of country lay out of the way of the old transportation route it received but little attention in early days. When the railroad was built it was made immediately accessible as the line was constructed directly across it. A couple of townships were taken up quickly and the hamlet of High Prairie sprang into existence near the crossing of West Prairie river. The four townships in the immediate vicinity, including the hamlet itself, had a population in 1921, according to the Dominion census, of 582.



HIGH PRAIRIE, STURGEON LAKE AND MCLENNAN - FALHER DISTRICTS

While the prairie lands in this locality are not extensive and have already been nearly all filed on, there are extensive areas of lightly wooded lands in which numerous small open patches occur. The soil is uniformly good, the climate is agreeable and the locality has the advantage of being nearer the Edmonton market than other Peace River sections. Land seekers have been exhibiting considerable interest in it during recent years.

Roughly this locality might be said to extend westerly to the Little Smoky river, southerly to Snipe lake and the Lesser Slave forest reserve, northerly to Big Prairie settlement, and easterly to adjoin those lands which were included in the Lesser Slave lake locality. The railway crosses the north-easterly part with High Prairie as its principal depot. Other stations are Enilda, Aggie, and Kenzie. The surface varies from level to rolling. The elevation is from 1,900 to 2,400 feet above sea level, except to the south where it rises more rapidly.

Within the boundaries mentioned there are about twenty-four or twenty-five townships, nearly all of which have been surveyed. A few large timber berths have been reserved, but there are available for settlement between two and three thousand quarter sections. Comparatively few of these have been taken. While most of the land might be considered too heavily timbered or remote from steel for immediate economic development it is only a matter of time till it is brought under cultivation. Over seventy-five per cent of the whole area is potential agricultural land.

This section of country offers excellent opportunities to the land seeker who is willing to undertake the free use of an axe. Similar lands have been cleared up to make some of the best farms of the whole Peace River district. Progress will be slower than on the prairies but the resultant farm may eventually be more valuable. Improved lands in this district have a good selling value.

STURGEON LAKE DISTRICT

This is a district in which there is very little settlement or development, and yet, by virtue of its location, it is likely to be over-run from three sides within a very few years. It lies to the west of the High Prairie district, to the south of the McLennan-Falher district and to the east of the Grande Prairie district. Almost surrounded by these three growing and spreading settlements it is only a matter of time till their expanding borders encroach on it.

The Sturgeon Lake district has well defined natural boundaries. Along the west is Smoky river. On the east is the Little Smoky. Across the north these rivers converge sharply toward each other and unite, thus hemming it in on three sides, and, with their deep valleys, temporarily isolating it from the settlements beyond. Southerly it is limited by higher and rougher lands. Near the south central part lies Sturgeon lake, which gives its name to this area.

Within these boundaries there are over a million acres of surveyed lands, besides some timber lands and Indian reserves. The soil is uniformly good, almost the entire area being potential agricultural land. The surface varies from level to rolling. It is practically all wooded country but repeated fires have swept over large areas leaving much brule and many small open patches. These and numerous hay meadows make good grazing lands. There are some heavily wooded sections but most of the prevailing woods are of the small poplar bluff type.

There is a wagon road from Grande Prairie to Sturgeon Lake, crossing Smoky river by a ferry a few miles below Bezanon. Scattered settlement is found all along its route and on the south of the lake is a large Indian reserve. Another wagon trail connects the lake with High Prairie and Grouard. Numbers of other trails traverse various sections.

There is an extensive Roman Catholic Mission at Sturgeon Lake which successfully operates a large farm that has been cleared of the prevailing woods. Wheat, barley, oats, green feed, hay and excellent garden produce are grown in large quantities. The mission also conducts a boarding school for Indian children. The staff includes two priests, one brother and nine sisters, and there are usually about eighty children in attendance.

One hundred miles in an air line southeast of Sturgeon Lake is Whitecourt, the northerly terminus of a branch line of the Canadian National railways. It is located on the Athabaska river at the junction of the McLeod. An agitation is under way to have a motor highway constructed between these points. The providing of better transportation facilities, either by highway or rail, would remove the last barrier to the development of this district.

McLENNAN-FALHER DISTRICT

McLennan is the second divisional point on the Edmonton, Dunvegan and British Columbia railway. It is 267 miles northwest of Edmonton. From it the main line of the railway runs westerly while a branch line runs more northerly to Peace River. It is located on the south shore of Kimiwan lake, being about thirty-five or forty miles by wagon road north-westerly of Grouard.

The old wagon road from Grouard to Peace River passes about fifteen miles to the east of McLennan while that from Grouard to Spirit River passes about four miles to the south. Both the main and branch lines of the railway have followed, more or less closely, these pioneer roads.

The shores of both Kimiwan and Winagami lakes are low and marshy, and extensive areas of low land surround them. About six townships of such lands are under lease for grazing and hay-making. The most extensive area of improved farm land in this section lies west of McLennan and east of Smoky river. It centres around the thriving hamlets of Donnelly and Falher.

The McLennan-Falher section lies immediately northwest of the Lesser Slave Lake and High Prairie sections. It extends westerly as far as Smoky river and easterly to the unsurveyed lands north of Lesser Slave lake. Its northern boundary merges into the Peace River locality, but for purposes of this description might be assumed to be the north boundary of township eighty. This would extend it as far as Reno, a station about midway on the McLennan-Peace River railway branch. Within these boundaries are about forty surveyed townships. Less than half the available land has yet been taken up.

The Donnelly-Falher settlement is an outstanding example of the success that can be attained by the pioneer who is thrifty, determined and not afraid of work. Few people would have believed it possible, had they viewed this locality in its natural state, that in the course of a few years it could be turned into so thriving and prosperous a community. The clearing of the land alone appeared a formidable task while the soil did not promise to prove the best. Clearing, drainage, cultivation and general improvement, however, worked wonders, and the Donnelly-Falher settlement is now one of the show places of the Peace River district.

Falher is largely a French-Canadian community. The hamlet contains a very fine cathedral, excellent places of business, a substantial school-house and a convent built in 1927 at

a cost of \$31,000. Plans for the erection of a similar convent in Donnelly, in 1928, have been announced. A creamery that played an important part in the early development of this district was destroyed by fire, unfortunately, in 1927.

Most of the land available for homestead entry in this section is very similar to that already improved. There are a few quarter-section more open, but most of the country is fairly thickly wooded with poplar, small spruce and willow. The surface is level to rolling and the soil is fairly good. There are some marshy lands besides those mentioned about the lakes, but they account for only a small per cent of the total. Several settlers have located along the Peace River branch line and are showing satisfactory signs of progress.

This district is probably best suited to mixed farming. Its transportation facilities are good and the success of those who have already pioneered should warrant further expansion. The French-Canadian pioneer would doubtless get along well here and would find himself in congenial company. As further evidence of progress, it might be quoted that 6,000 acres of land were cleared and broken in this vicinity in 1925, 7,000 acres in 1926, and 6,000 acres in 1927.

PEACE RIVER DISTRICT

Forty-eight and a half miles north of McLennan, by rail, lies the renowned town of Peace River. It is located in the valley, on the right bank of Peace river, at the confluence of a smaller tributary, the Harmon. In its earlier days it was known as Peace River Crossing or Peace River Landing. The wagon road from Lesser Slave lake, following the Harmon river to secure an easy grade to the bottom of the Peace valley, reached the far-famed river that was its immediate goal at this point. A favourable site for a crossing was found and, it being a convenient point for transshipment of goods from wagon to boat or boat to wagon, there grew up a little frontier outpost that gradually replaced the older trading posts of the near vicinity.

A ferry was early provided for transferring horses and wagons across the river, a good wagon trail was located westerly to Dunvegan and from there, after another crossing had been arranged, southerly to Spirit River and Lake Saskatoon. Peace River, before the agricultural era had set in, was an important transportation point in the northern fur trade. With the coming of the land seeker, and especially since steel reached it,

the town has grown with characteristic western rapidity. It is now a modern and thriving frontier centre and headquarters of extensive agricultural and transportation activities.

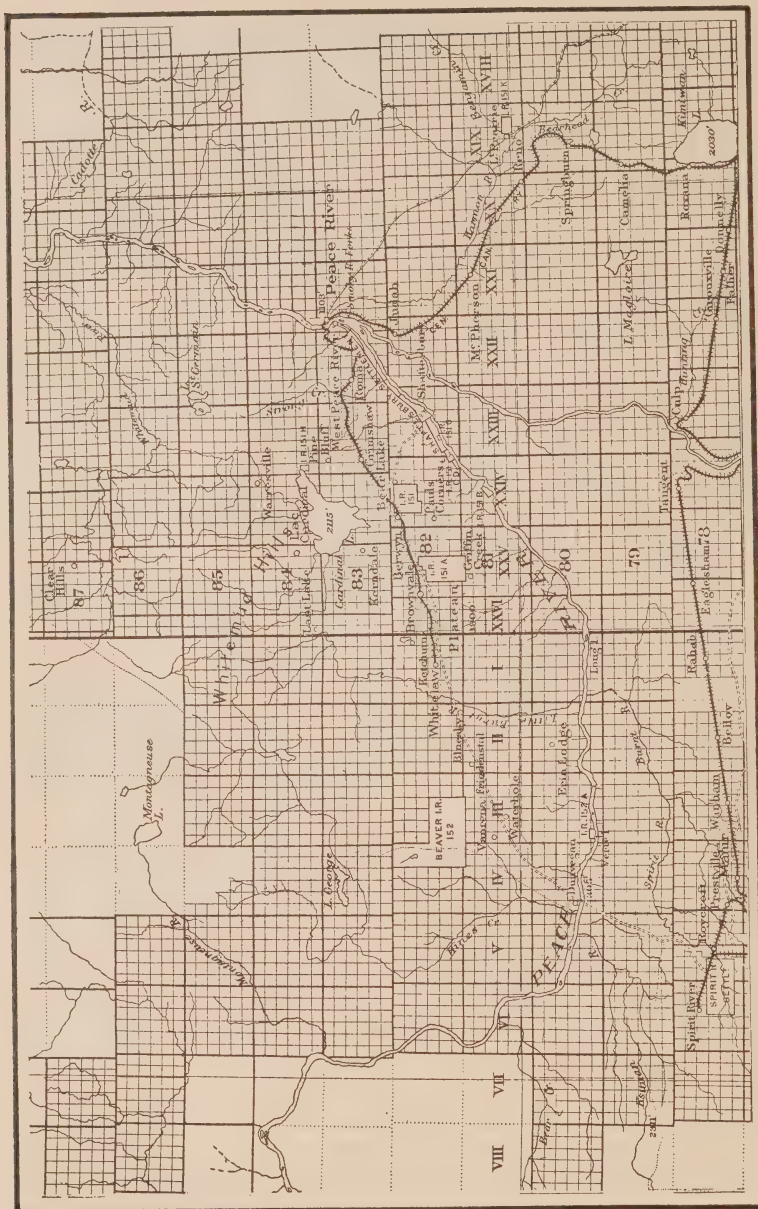
Various government offices are located in it, as well as creditable churches, schools, and a hospital, the first to be established in the district. The town has electric lights, banking facilities, a weekly newspaper, a moving picture theatre, a Dominion Land office, telegraph and telephone offices, and a very creditable complement of wholesale and retail houses, hotels, restaurants, garages and other places of business common to such centres.

Public health is cared for by several resident physicians and surgeons, and public and private nurses. Sports and recreation receive due attention, the town having a splendid covered curling rink and a fair golf course. A wide range of social, fraternal and welfare organizations are quite active. The cost and general conditions of living compare very favourably with those of the average western community, and the site of the town is particularly pleasing.

On the flats just above the town and on the opposite side of the river is one of the oldest farming sections of the whole Peace River settlement, namely Shaftsbury settlement. Horticultural undertakings probably date back to the very earliest years of the fur trade, but grain growing was successfully demonstrated by Anglican missionaries, who, for a time, milled flour here from their own mission-grown wheat. It is on the plateaus, however, particularly to the west, that the great farming areas contiguous to Peace River are found.

One of the most extensive prairies of the whole district was that extending on the north side of the river from the top of the valley opposite Peace River to the edge of the plateau above Dunvegan. This great tract of fertile land is about fifty miles in length and from ten to twenty in breadth. Practically all has been settled up. On it are found some of the finest wheat farms of Western Canada. As an improved agricultural district it ranks now with the older settled and more southern parts of the province.

For purposes of this description the area contiguous to Peace River might be said to extend as far west as the Sixth meridian of surveys, embracing the Municipal District of Peace, No. 857, the executive offices of which are located in Berwyn. The principal centres between the town and this line are Roma,



PEACE RIVER, DUNVEGAN - WATERHOLE AND (PART OF) SPIRIT RIVER DISTRICTS

Grimshaw, Paul's Corners, Griffin Creek, Berwyn, Brownvale, Kerndale, Last Lake and Lac Cardinal. To the north, in the Whitemud locality, is Clear Hills.

Berwyn, the centre of Peace Municipality, is a prosperous young hamlet. It has a creamery, two hotels, three general stores, a hardware store, two elevators, two garages, a blacksmith shop, municipal offices and other places of business. There are three churches, a two-room school and a community hall. Annual fall fairs are held by its Agricultural Society.

In the Whitemud district there are extensive areas of good land, lightly wooded and having scattered patches of prairie. Settlement is gradually extending there. South of and adjacent to Peace river the land is more broken. Some is fairly heavily wooded along the Grouard wagon road, but there is a good settlement at Little Prairie. Adjacent to the railway there are growing settlements radiating from Judah, McPherson and Nampa. East of the town the land is also somewhat rough and wooded and some is wet, there being numerous muskegs and marshes, but most of it can be improved to make good farm land.

DUNVEGAN-WATERHOLE DISTRICT

Perhaps no name associated with the Peace River country has been more abused than Dunvegan. When the building of a railroad into the north was undertaken and the name "Edmonton Dunvegan and British Columbia" was announced, it was taken for granted by many that Peace river would be spanned at the site of this venerable trading post. Forthwith there ensued an era of unwarranted speculation with this site as the scene of imaginary activities. The facts of the case are that the main line of the railway passes about fifteen miles south of Dunvegan, and the branch line, which crosses the river at the town of Peace River, is being extended gradually across the plains to the north.

The beautiful tract of country extending from the Sixth meridian to the edge of the valley above Dunvegan is a continuation of that described in the foregoing section as adjacent to Peace River. Before there were railway facilities here farm produce was hauled down to the river at either extremities of the trail. From Dunvegan a little was shipped by steamboat, but the bulk was freighted still farther along to Spirit River. Now steel has reached a point called Whitelaw, well in the heart of the settled lands, and it is anticipated that it will shortly be extended as far as Waterhole, or a point in its vicinity.

With the additional advantages of railroad transportation the country north of Dunvegan promises to continue its rapid development. Excellent land, partly open and partly lightly wooded, is found as far north as the Clear hills and several miles west of the old trail. It is level to rolling, mostly covered with small poplar, willow bluffs, scattered spruce and some jack pine. The soil is reported as mainly a sandy clay loam with some sandy ridges. To the north it is more diversified. There are some sections comprising nearly fifty per cent open lands and with good soil. Then come areas of light sandy soil, areas heavily wooded and areas that are too wet or broken to be of much value. A personal inspection is advisable by the landseeker here, as of course, in every locality to-day.

The main part of the Dunvegan-Waterhole district is organized as Fairview Municipal District, No. 858, with executive offices at Waterhole. The principal centres in this area are Waterhole, Whitelaw, Bluesky, Vanrena, Friedenstal, and Erin Lodge.

Waterhole is a thriving hamlet, having a bank, two hotels, four general stores, two garages, a hospital with six beds and X-ray apparatus, telegraph office and other places of business. It is prepared to move bodily to a new site should any railway extension precipitate that necessity.

There are several surveyed townships open for entry in this area. As the railroad is extended and highways are improved, these lands become of sufficient economic value to warrant taking up. In the meantime some of the best grazing areas are being utilized by stock men. The Waterhole district has already proved itself an unusually good producer of wheat. Rapid growth and development may be expected of this locality.

SPIRIT RIVER DISTRICT

The Spirit River prairie is not extensive but it includes several townships of excellent farm lands on a gently sloping plateau south of Peace river and nearly opposite Dunvegan. This section is exceptionally free from frost and the earliest agricultural efforts on an extensive scale in the upper Peace River country were launched here. Spirit River settlement was surveyed in 1907. Township surveys were extended in 1909 and the open lands were taken up quickly. The main area is now organized as Spirit River Municipal District No. 829.

The settlement, and the old fur-trading post about which it spread, were reached first by the Peace River-Dunvegan wagon trail. Later another trail was cut out to cross the Smoky river and give a more direct connection with Lesser Slave lake. Then came the railroad and made of Spirit River a temporary western terminus. Grading was extended westerly about fifty-five miles to the Pouce Coupé country, but unfortunately the laying of steel was not accomplished. From a point a few miles east of the depot a line was run southerly to tap the Grande Prairie district.



GOVERNMENT IMMIGRATION HALL

Dominion Government Immigration Hall in Spirit River. (Photo taken in early winter)

Spirit River has a good hotel, two general stores, a hardware store, a drug store and several other small retail establishments, as well as one bank. Other enterprises include a flour mill, a saw mill, two blacksmith shops, three implement agencies, two garages and an oil distributing station.

The public institutions include a Dominion Government immigration hall, a sub-office of Dominion lands and a Provincial Police post. There are several organized school districts in the surrounding territory. Places of worship include a United Church and Roman Catholic and Anglican Missions. The village has also a good brass band.

The Spirit River locality might be said to extend to Peace river on the north and Smoky river on the east. To the south a broken range of low, thickly wooded hills separates it from the more extensive Grande Prairie district, while a somewhat similar condition is found to the west. To the northwest, in what is known as the Blueberry Mountain district, there is quite an area of good agricultural land. Many settlers have located there recently, of which a large percentage are returned soldiers.

The Spirit River country has an elevation of 2,000 to 2,600 feet above sea level. It comes within the influence of the warm Chinook winds and is well adapted to mixed farming, grain-growing and stock-raising. The soil is mostly good, comprising clay, sandy clay and rich alluvial silt loams. The surface is level or gently rolling. Between the main settlement and Smoky river there is much good poplar land with intervening prairie patches. It has been surveyed and there are many good quarter-sections available for homesteading here within a reasonable distance of the railway.

GRANDE PRAIRIE DISTRICT

The most extensive area of treeless plains found by the pioneers of the Peace River district was that lying well in the southwest section. It radiated from Lake Saskatoon, the last trading post on the old Peace River and Dunvegan wagon road. To the east it swept nearly as far as Smoky river. Its southerly boundary was the Wapiti. On the north it was separated from the Spirit River prairie by the broken and wooded ranges of hills referred to in the preceding section. To the west it gradually gave way to more park-like lands extending to the British Columbia border and the foothills of the Rockies. Very appropriately the pioneers called this vast open sweep of land the "Grande Prairie."

One of the earliest agricultural settlements was that of Flying Shot Lake, near the present town of Grande Prairie. It comprised a little over two thousand acres and was surveyed as a settlement in 1908. Two years later the prairie was being laid out in regular townships and sections, and the rush of homesteading quickly followed. Brush, park and lightly wooded lands adjoining the prairie were taken up when open lands were no longer available. The growth and development of the Grande Prairie country has been remarkable. The census of 1921 showed that in twenty-four townships comprising the heart of the district there was a population of over four thousand.

For the purpose of more detailed description the Grande Prairie country might be limited on the west by the line between ranges eight and nine, west of the Sixth meridian of surveys. Beyond that the country differs but little except that it is slightly higher and less open. It might very well be considered as part of the Grande Prairie country, but is probably more associated with the names Beaverlodge and Valhalla.

The Grande Prairie section, as indicated, has passed the pioneer stage and is to-day one of the most charming and prosperous agricultural regions of the Western Canadian plains. Extensive, highly improved farms, modern buildings and good roads proclaim the success and progress that has crowned the efforts of the settler. The railroad, first extended southward from near Spirit River to the town of Grande Prairie, has recently been produced westerly some fifteen miles to Wembley. It is hoped further extensions will follow shortly.

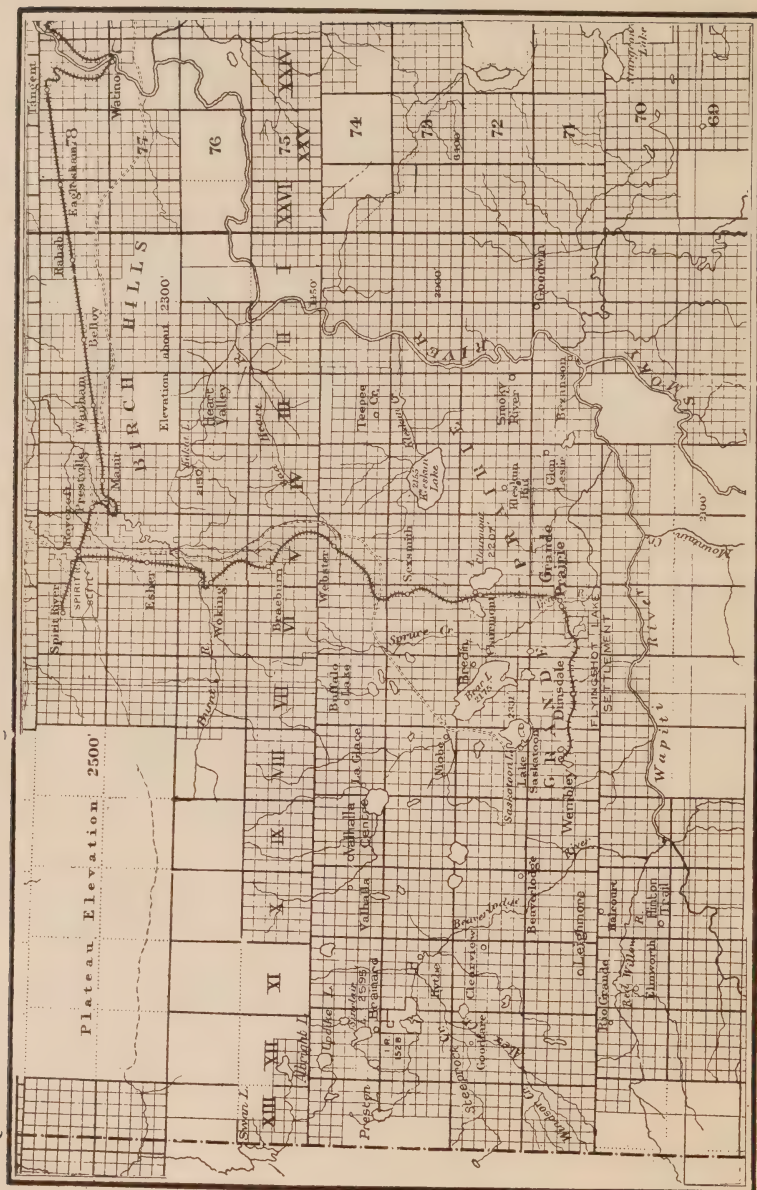
Several prosperous centres have grown up as the natural sequence of successful agricultural settlement. The principal of these centres are the town of Grande Prairie, the village of Clairmont, and the unincorporated hamlets of Sexsmith, Lake Saskatoon, Niobe, La Glace, Buffalo Lake, Webster, Kleskun Hill, Glen Leslie, Bezanson, and Wembley.

Grande Prairie is the administrative and commercial centre of the extensive southwestern part of the Peace River country. In it are found offices and representatives of nearly all federal and provincial services concerned with the public business of the district. The public and high school building is the largest and most modernly equipped structure of its kind north of Edmonton. There are also three substantial churches and a good hospital.

In the business section of the town are found three hotels, three general wholesale houses, three banks, a lumber and building-supply yard, and a good range of retail houses and financial and commercial offices.

Industrial establishments include a weekly newspaper, a brick plant, a flour mill, a packing plant, a sash and door factory, a creamery, an electric light plant and three garages. The town has an efficient fire brigade, curling and skating rinks, tennis courts, and a golf course. It is well provided with telegraphs, telephones, elevators and stock-yards and is exceptionally well contained.

There is practically no free homestead land left in the Grande Prairie country. Around its outer fringes one may find an odd quarter that has been passed by because of its thick tim-



GRANDE PRAIRIE, BEAVERLODGE-VALHALLA AND PART OF SPIRIT RIVER DISTRICTS

ber or some other defect, but, generally speaking, the era of home-steading is a thing of the past in this area. East of Smoky river, however, there is much good land, lightly wooded, and settlement is gradually spreading in that direction.

Some homesteaders prove up on their quarters merely to sell as soon as they secure their patents. Land of this class, having the minimum of improvements, can often be purchased for a few hundred dollars per quarter-section of one hundred and sixty acres. The great majority of settlers in the Grande Prairie district, as in the whole Peace River country, are genuine



VIEW OF GRANDE PRAIRIE

The town of Grande Prairie possesses the finest school building (shown in foreground) north of Edmonton.

farmers and not speculators, but for various reasons there are always improved farms for sale in this as in every other district. Prices of such depend on location, soil, improvements and other factors and may be said to approximately vary from ten to twenty-five dollars an acre. Government agents do not handle privately owned lands.

Clairmont, Sexsmith and Wembley, all located on the railway, are the scenes of considerable activity. New settlers are continually arriving with carloads of effects and the movement of grain in the fall and winter months often creates congestions of four-horse teams about the elevators. Sexsmith draws its business from as far west as Valhalla, and Wembley, being at the end of steel, from the limits of settlement. All these centres have the usual complements of general stores, elevators, churches, schools and necessary places of business.

BEAVERLODGE-VALHALLA DISTRICT

The Beaverlodge-Valhalla district is referred to often as the western half of the Grande Prairie district. It is in reality a continuation of the same area but it has the distinction of being more uneven in its surface and of having less prairie land. It includes the drainage basins of the Beaverlodge and Red Willow rivers and the upper part of Bear river as well as part of the main Wapiti basin. Partially separating the Grande Prairie and Beaverlodge-Valhalla districts is an extensive elevation known as Saskatoon mountain. It stands out as a prominent landmark and is visible from nearly all parts of the whole prairie.

The Beaverlodge-Valhalla area contains about thirty townships and practically all is surveyed. A very large part has been taken up; much of it has been patented and improved, and all promises to follow closely the lead set by Grande Prairie, especially when the railroad is extended into it. There are still some good quarters open for homesteading; the soil is good with the exception of some stony ridges, and climatic conditions are unusually favourable.

The best known community in this district is Beaverlodge, the home of W. D. Albright, on whose farm a most remarkable experimental sub-station is conducted under the direct supervision of the owner and on behalf of the Experimental Farms Branch of the federal Department of Agriculture. Mr. Albright's reports, issued annually by the department, should be read by every person interested in the Peace River country, and the station should be visited by any who may be so fortunate as to be within reasonable distance at any time during the summer or fall months.

Beaverlodge was the centre of the first considerable agricultural operation south of Spirit River. It has a good general store, two implement agencies, two restaurants, a blacksmith shop, telegraph office, sub-agency of Dominion lands and other places of business, three churches, public and high schools and a Board of Trade that is always ready to assist a prospective settler in finding a suitable location.

Southerly and along the Red Willow river are found thriving communities at Halcourt, Leighmore, and Rio Grande. Many homesteaders are now locating between the Red Willow and Wapiti rivers where there are already settlements at Elmworth and Hinton Trail. To the northwest are others at Clearview, Hythe, Goodfare, and Brainard.

In the northwesterly part of this district is found a Scandinavian settlement of outstanding note, commonly known as the Valhalla settlement. It consists of four or five townships radiating from Valhalla and Valhalla Centre. A couple of additional townships lying farther north and centering about Northfield might also be included. Easterly the settlement extends to La Glace, which has a more mixed population.



VALHALLA CO-OPERATIVE CREAMERY

Sir Henry Thornton (lower step), President of the Canadian National Railways, during the course of his official visit to the district.

The selection of this location was made in 1912 and the first settlers arrived in 1913. The land was mostly covered with brush and broken with numerous wet places, but the soil appeared good and there was a sufficient area vacant to admit of a community settlement.

Wheat was first grown in 1915 but premature frosts injured several crops. To find a safer source of revenue, as well as one more easily marketed until better roads were provided, a creamery was started in 1920. The first year's operation produced 26,000 pounds of butter. In 1924 the production was

172,000 pounds. It is made in one pound prints, packed in fifty pound boxes and freighted to Sexsmith or Grande Prairie. This creamery has been the salvation of the settlement.

Turkey raising has also proved profitable. In 1925 some 1,400 birds were killed collectively. They averaged 10 pounds each and sold for 30 cents per pound gross or 27 cents net. In 1926 coyotes were exceptionally numerous and carried off about half the growing turkeys, but upwards of 1,500 birds were marketed. The following year's production showed a substantial increase. The wheat crops of 1926 and 1927 were good both as regarding yield and grade. The clearing up and draining of the land have worked wonders in stimulating early maturity of crops and the settlement is now in a prosperous condition. Its population is about 600, practically all Scandinavians.

Valhalla Centre, the principal hamlet, has three stores, a lumber yard, a blacksmith and woodworking shop, a creamery, a stopping place, a community hall, a two-room school opened in 1914 and now teaching ten grades and having an attendance of over fifty pupils, and a church, 34 by 60 feet, built at a cost of \$7,000.

A main highway connects Beaverlodge with Lake Saskatoon, Wembley and Grande Prairie to the east and the Pouce Coupé country to the northwest. The Government telegraph line also runs through the district. Good highways also connect Valhalla with Sexsmith, Grande Prairie, and Beaverlodge. It is safe to say that the Beaverlodge-Valhalla country will, in a very few years, rank with the best of western farming areas.

POUCE COUPÉ DISTRICT

Northwest from Beaverlodge and west from Spirit River and separated from them by an intervening belt of wooded, hilly country, is the Pouce Coupé district. It comprises several townships of gently rolling prairie and lightly wooded park lands. Reliable estimates place the amount of choice land having the very best of soil at nearly three hundred thousand acres. Most of this has already been homesteaded.

This district lies on a high plateau in the southeast part of the Peace River block of British Columbia. It settled up with a rush following the grading of the railway from Spirit River, but suffered severely from lack of transportation facilities because of the failure to complete this road. Recently a good highway has been provided to give an outlet by way of Beaverlodge to the end of steel at Wembley. There is also a winter

road following the railway grade to Spirit River, a wagon road northerly to Rolla Landing, a point on the river where steamboats call, and another one northwesterly to Fort St. John, the Peace being crossed by ferry at Taylor's flats.

Over thirty townships have been surveyed in this district. They extend north to Peace river and some distance west of the Kiskatinaw. Some quarter-sections that would make good farms are available for homestead entry, but much of the vacant surveyed land is rough and broken by ravines and more or less heavily wooded in patches. Some of it is well adapted to stock-raising or ranching on a small scale. Wild hay and peavine grow abundantly, and the influence of the Chinook winds favours a longer winter grazing period. West of the Kiskatinaw the land generally becomes higher, rougher, and more heavily wooded toward Pine river, but there is a select tract at Sunset Prairie.

Three hamlets serve the commercial wants of this settlement, namely Pouce Coupé, Rolla and Dawson Creek. The total population of the Pouce Coupé district, including these hamlets, was slightly over one thousand at the taking of the 1921 census.

In these centres are found the usual complement of general stores, hotels, restaurants, livery stables and garages, so vital to the life of the community. Pouce Coupé has a Red Cross hospital with a staff of three nurses and good accommodation for about twelve patients, a medical doctor, a good public hall erected by the local Great War Veterans Association, a bank, a sub-agency of Dominion lands, a provincial government agency, a provincial police station, a telegraph office and a small flour mill.

Schools, churches and post offices are established at or near these centres, Rolla having a high school, also a telegraph office. There is a blacksmith shop at Rolla and another at Dawson Creek as well as a saddlery shop. About six miles from Pouce Coupé is the co-operative creamery, and a sawmill is located about fourteen miles from Rolla.

FORT ST. JOHN DISTRICT

Fort St. John was originally located on the north bank of Peace river on a small flat at the foot of steep, rugged banks eight hundred feet high. It has gradually given way during recent years to a new location on the plateau above, a site better adapted to the convenience of the increasing agricultural popu-

lation and sometimes known as North Fort St. John. It occupies a position almost in the centre of the Peace River block of British Columbia.

Fort St. John was established as a fur-trading post in 1805. This time-honoured trade is carried on still by both the Hudson's Bay Company and Revillon Frères, as well as by some independent traders. About their posts are usually found some Indian encampments, for this district is still rich in furs. In addition, Fort St. John has such modern acquisitions as a Dominion Government telegraph office, a sub-agency of the Peace River Land office and a British Columbia provincial police post.

The Fort St. John district that is attracting farmers and ranchers lies on the high plateau north of the river. At least half a million acres of prairie and park lands are found here together with large areas of lightly wooded lands that can be economically cleared. The soil is very fertile over most of the district, the surface is level or gently rolling, and vegetation is luxuriant. Wild hay and peavine grow in great profusion. Grains, domestic grasses and vegetables are most successfully produced.

A few miles north and west of the post is a body of water about ten miles long called Charlie lake, about which there are some heavy woods. To the northeast is found Beaton river, formerly called North Pine. Its valley is deep and its many tributaries, with their deep ravines, tend to break up much of the country and make it too rough for grain growing. These valleys and hillsides afford good grazing. The snowfall is light and the Chinook winds often keep the hillsides bare all winter.

Taken on the whole this district is well adapted to mixed farming and ranching. It is still remote, however, from markets and civilization, and in consequence cannot be recommended for immediate settlement, although considerable good land is open. Several families, willing to await developments, have gone in to get their choice of location, and some ranchers have taken in cattle. The district is reached by boat during summer months or by a new highway from Pouce Coupe. A pack trail also leads in from Dunvegan. Fort St. John and Hudson Hope are connected by a wagon trail. There is also a good wagon trail running north to Blueberry river and pack and sleigh trails from there to Fort Nelson river.

HUDSON HOPE DISTRICT

Hudson Hope is located on the north bank of Peace river on the westerly limit of the Peace River block. It is the gateway from the great plains to the mountain regions, being at the foot of Rocky Mountain canyon and on the easterly base of the foothills. In early days a trading post, called variously Rocky Mountain House or Custs' House, was located at the upper end of the canyon. This was replaced by a post at the foot of the canyon about which other posts and a few scattered buildings have grown up to constitute the present Hudson Hope.

During summer months steamboats ply up and down the river from Peace River town to this little settlement, giving on an average a fortnightly service. There is also considerable travel to and from Prince George by canoe. This route, by water and portage, is about three hundred miles. A wagon road some fourteen miles in length leads past the canyon to the upper waters of the Peace, which are navigable for steamboats. Another road gives connection with Fort St. John. From a point on the opposite side of the river another road leads to Pine river and the Pouce Coupé district and a trail runs some eighteen miles south to Moberly lake. Various other trails lead out to the haunts of the trapper and the prospector, for this district is rich in furs and has wonderful mineral possibilities.

In the immediate vicinity of Hudson Hope, on either side of the river, there is very little agricultural land. The country is rather hilly, rough and stony. The soil is not of the best and most of the surface is wooded. There are a few choice sections but they are not extensive. Down stream a few miles on the north side of the river and adjacent to the Halfway river there is a much larger area of gently rolling country, wooded with small poplar, willow and alder, and having good soil.

A few homesteads have been located about Hudson Hope, here and there on the flats along the river below and near the mouth of Halfway river where there is a little community called Halfway. Excellent crops of grains and vegetables are produced on these farms. About Moberly lake there is some good land, but the best falls within the limits of Indian reserves. Wild hay and peavine grow profusely in this district, which appears well adapted to mixed farming and stock-raising.

Hudson Hope is provided with telegraph service, being the terminus of the Edmonton-Peace River Government line. It holds a very strategic position, being in the direct path of any

railroad line that might be projected through the mountains by the low pass of the Peace river valley. It should witness important developments at some future date.

BATTLE RIVER DISTRICT

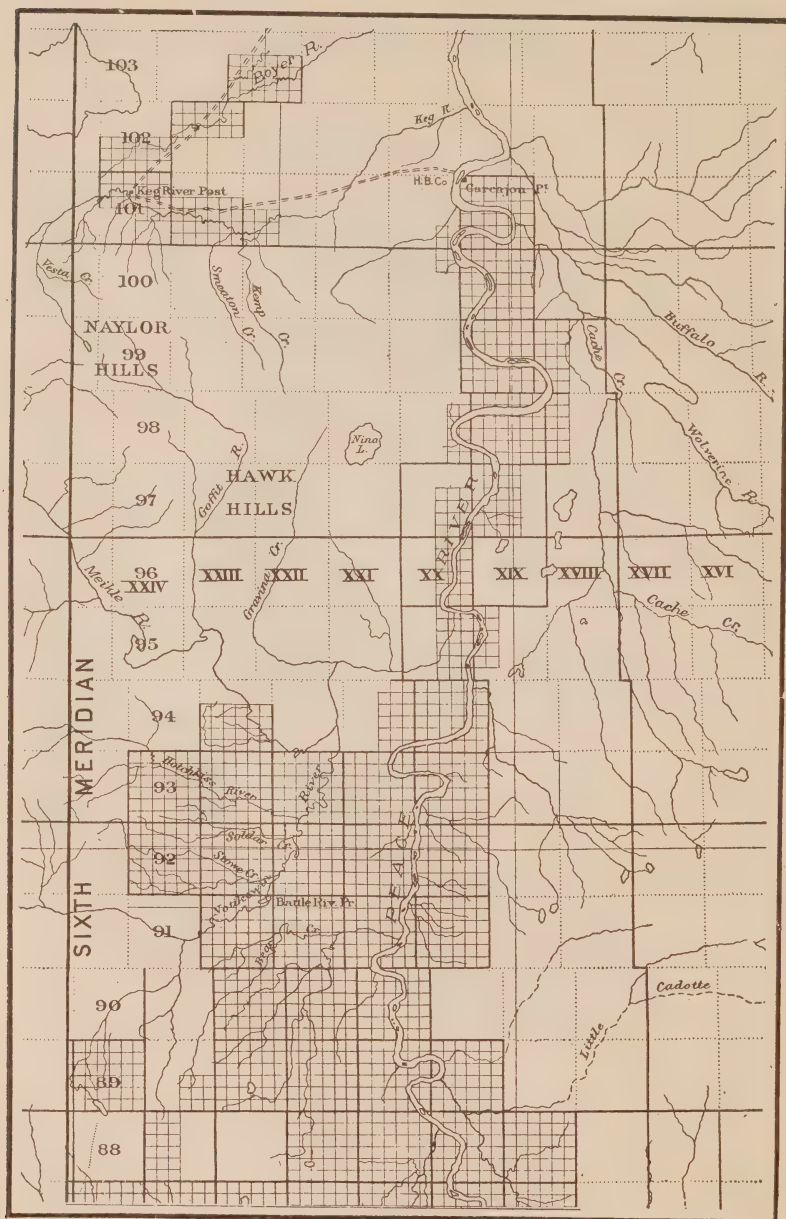
The twelve local districts, as described on preceding pages, all lie in the southwest part of the Peace River country. They are south and west of, or upstream from, the town of Peace River. Going north or downstream from this town one finds scattered settlers all along the river as far as Fort Vermilion and Vermilion chutes. The principal intervening settlement is that commonly known as Battle River, situated almost due north of the town of Peace River and about fifty miles distant in a straight line.

Battle River Post (or Notikewin), the heart of this district, lies in township 91, range 23, west of the Fifth meridian. It is reached from a landing place on the river by a wagon trail running almost due west for twelve or fifteen miles. Another wagon trail gives connection with Peace River town by way of the Whitemud settlement. About this post is a scattering of settlers spread over parts of three or four adjacent townships.

A large part of this district is drained by the Notikewan river, which was formerly known as Battle river, thus accounting for the use of that name. Township surveys have been extended over a large territory and there is much good land here available for homestead entry. The lands immediately adjacent to Peace river have been surveyed still farther north to Carcajou point.

This district is nearly all wooded or has been wooded in recent times. About the post there are numerous small prairies and more or less open areas where the grass is good. Some of the best townships are slightly rolling and covered with poplar, willow, brûlé and scattered spruce. Towards the river there is more wet land with muskegs and heavier spruce, tamarack and jack pine. To the north much of the land has been burnt over and in places the soil is somewhat injured. Young poplar is growing up and no permanent damage is likely to result.

Lacking railroad service this district cannot be expected to develop rapidly, especially in view of the work involved in bringing the land under cultivation. In the meantime it promises fair returns in stock-raising or dairying. The soil is generally good and eventually the district will be a continuous farming community.



BATTLE RIVER DISTRICT

FORT VERMILION DISTRICT

The last great area of virgin plains still remaining practically untouched by the tide of settlement that is sweeping over other portions of the Peace River country lies away to the north around the old trading post of Fort Vermilion. Last to receive its share of this human tide, and yet first to let the world know of its riches and possibilities, this primitive post still stands guard in the heart of a vast solitude which will presently echo with the busy life of thousands of homes. Beautifully situated on the low broad valley of the Peace, where the waters are wide and placid and the high steep bluffs have given way to gently sloping banks scarcely higher than the valley itself, the quaint cluster of buildings stands out in bold relief and presents an inspiring front.

Located about two hundred and fifty miles north of the town of Peace River, cut off from the outside world except for steamboat service during a few summer months, and with its interest focussed on the fur trade of its own great district, the little post has lived its own life and retained its simple customs far from the stress and worry of greater centres. About the post are clustered the Hudson's Bay Company's buildings, including a modern fifty-barrel roller flour mill, steam driven and electrically lighted, and a sawmill and shingle-mill, the Roman Catholic mission, the English Church mission, and, on the opposite side of the river at North Vermilion, Revillon's post. Two striking farms, a few miles up river, the Lawrence farm at Lawrence point and the Jones farm at Stoney point, have been producing for over twenty-five years all common varieties of grains and vegetables. For as many years wheat has been raised about the post, and the possibilities of the district have been established for a long time. Recently several new settlers arrived, some of whom brought considerable numbers of cattle and horses.

For one hundred and fifty miles along the river, from Carcajou to Vermilion chutes, and extending twenty-five or thirty miles on either side, lies one of the most fertile plains of the American continent. The surface is level or gently rolling, and the soil is a rich deep loam on a sandy clay subsoil. Many hay meadows are found, and a small percentage of the surface is light muskeg. A few sandy ridges occur, usually covered

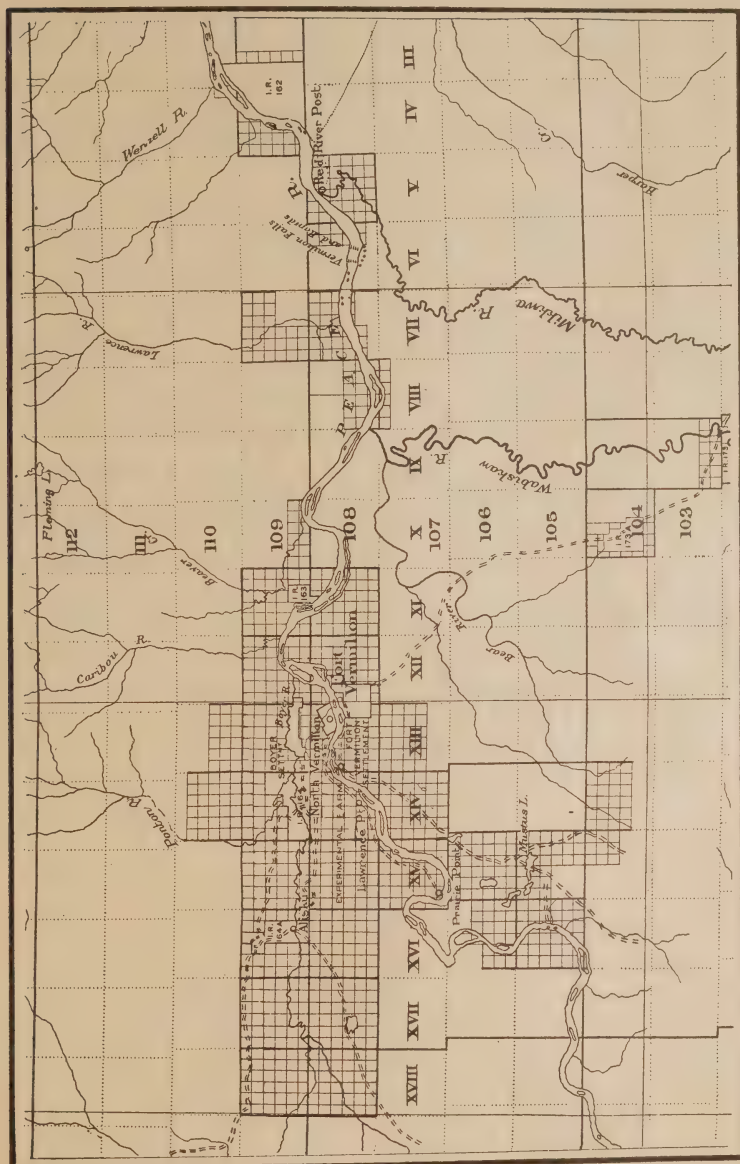
with jack pine. Much of this area is prairie, but the predominating feature is its park-like nature. Bluffs and small clumps of poplar and birch, with patches of open prairie intervening, or extensive prairies with occasional small poplars scattered singly here and there, are the prevailing features.

Spruce and heavier poplar and cottonwood are found along the waterways. Willow, alder, and other bushes are found on low land but are not as plentiful as in the Edmonton district. Building logs, fencing material, and fuel can be found within easy distance of any location, while the shelter for stock obtained from the light woods is an advantage the bald prairie does not possess. Most of the land requires but little clearing, and the soil is remarkably easy to break. The choicest park lands comprise over a million acres, while another million acres of excellent land will require but little clearing to fit it for cultivation. There still remains a great deal of good land, fairly easy to clear or drain, and which, when brought under cultivation, will give excellent returns.

The luxuriant growth of all vegetation, and the rapidity with which it matures, seem remarkable considering the latitude of the district, Fort Vermilion being in latitude $58^{\circ} 25'$ north. The altitude, however, is low, being about one thousand feet above sea-level, which offsets, to a certain extent, the northern latitude. The length of day during the summer season also hastens vegetation, the summers, though short, having almost continual daylight. Summer frosts and hail are very rare, and total crop failures from any cause are unknown.

The Dominion Government has established an experimental sub-station under the immediate supervision and on the farm of Mr. Robt. Jones at Stoney point, and during the past twenty years extensive tests have been made to determine the degree of success which could be obtained with various cereals, forage plants, fruits, and vegetables under normal conditions. The results have been most gratifying.

On the Sheridian Lawrence farms, a stone flour-mill was in operation for over twenty years, and a roller mill has been lately installed. Flour made from wheat grown in this district has been supplied to the northern trade continuously, and great quantities were disposed of to the Klondike miners during the rush of '98. A shipment of 9,000 bushels of wheat was made from the Lawrence farm to Fort William in the spring of 1917,



FORT VERMILION DISTRICT

by steamboat to Peace River and thence by rail. The long haul and high freight rates were overcome by the unusual price prevailing at that time. However, this was not a normal condition and until railway facilities are provided for shipping the grain direct, the transportation problem will be acute, though very favourable rates by steamboat have recently been put into effect.

While the district is exceptionally well adapted to wheat growing, it is also well suited to stock raising and mixed farming. Keeping in view the market and transportation situation, it should prove an excellent field for mixed farming, dairying, and small cattle ranches. The Keg River valley contains thousands of acres of the finest grazing lands to be found anywhere. The Hay River valleys, Hay Lake prairies, and Buffalo Head hills also contain much excellent grazing land.

The Hudson's Bay Company have outposts at Red River, a few miles below Vermilion chutes, at Hay River and Keg River, and also a warehouse at Carcajou. Revillon Frères have outposts at Hay River and Keg River, with a warehouse at Carcajou. Hay River is reached by a wagon trail running about one hundred miles northwesterly from Fort Vermilion. The fur trade at this outpost is very extensive, it being the chief trading centre of the Slavey tribe of Indians whose hunting grounds extend from Hay lake to Great Slave lake.

Westerly from this outpost a pack trail leads about seventy-five miles up stream to Hay lake. About this lake lies an extensive plain, level and fertile and producing yearly hundreds of thousands of tons of hay. Much of this area, however, is low and wet and subject to annual flooding, which renders it unfit for grazing. Along the wagon trail from Fort Vermilion to the Hay River post for the first fifty miles is found the finest land one could wish to see, Buffalo prairie being a particularly beautiful stretch of country. The divide between the Peace and Hay watersheds is high and stony, and stony land is also found for the remainder of the distance to the Hay River post, but it is covered with a luxuriant growth of wild hay and peavine. It is well watered and would make an excellent ranching district. The well-wooded Watt mountains lie immediately to the west.

A good wagon trail leads from Fort Vermilion to Keg River post, and from the post to the bank of the Peace at Carcajou. Along this trail the land is exceptionally good. A little heavy bush is encountered, and many large hay meadows are seen where the Beaver Indians make hay for their horses. For thirty miles before reaching the post the trail runs through one of the finest ranching valleys to be found anywhere, covered with peavine waist high, watered by a good strong stream, and sheltered by woods on either side. A number of townships have been surveyed recently and thrown open for settlement in this district.

From Keg River post a pack trail runs to Battle or Notikewan river from whence it widens out again to make a wagon road to the town of Peace River. Steps are being taken to cut out this last section of pack trail so as to give a wagon road from Peace River to Fort Vermilion.

South and east of Fort Vermilion numerous trails lead across the great stretches of beautiful rolling land extending to the Buffalo Head hills and the Wabiskaw river, where rich grazing lands and valuable timber areas are found.

This district has wonderful possibilities and a delightful climate. At present it is difficult of access, except in the summer time, and is cut off from other sections of the Peace River country and the outside world. It is reasonable to expect that within a short time a good wagon road from Peace River will be provided. Eventually the Fort Vermilion district is bound to be served by a railway. In the meantime it is a delightful and alluring frontier.

SOURCES OF INFORMATION

The Government of Canada and the Provincial Governments of Alberta and British Columbia offer all reasonable inducements and assistance to encourage the development of the Peace River country. Progressive steps have been taken to open it up by establishing lines of communication and transportation on land and river, and by building roads and bridges. Telegraph, telephone, and mail services keep it in touch with the older parts of the country. Law and order are rigidly enforced and maintained, and life and property efficiently protected. Educational and social advantages are provided. Advice and assistance is given the homesteader in the choice of

his location, the methods of farming his land and the rearing of his live stock. Crown lands are given free to homesteaders on complying with easy conditions; minerals may be staked and recorded on payment of small fees; and, generally speaking, he who assists in the development of the country may reap his own reward. To those who are willing to undergo a few years of pioneering the opportunities for success are promising indeed.

Various useful maps and publications are available for free distribution, in addition to copies of official regulations relating to the disposal of resources. When writing for maps, the applicant should endeavour to state specifically the scope which it is desired such maps should cover. Requests for information concerning any particular locality should be made to the local Dominion Lands agent. For information of a general character, maps, lists of unoccupied farms for sale or lease, and particulars of the regulations governing the disposal of Dominion lands, timber berths, grazing leases, mineral rights and water-powers, applicants should address the Natural Resources Intelligence Service, Department of the Interior, Ottawa. This Service will, where necessary, refer, without delay, queries requiring the special attention of any other office, to the proper authorities.

Reports of the experimental sub-stations at Fort Vermilion and Beaverlodge, and general information pertaining to agriculture, are available from the Publications Branch, Department of Agriculture, Ottawa.

The Deputy Minister, Mines Department, Ottawa, should be addressed for reports relating to mineralogy and geology.

For information regarding the Canadian Immigration regulations and Customs and freight regulations as applied to settlers' effects entering the country, interested parties residing in the United States would be well advised to write to the Department of Immigration and Colonization, Ottawa, Canada. This department is in a position to arrange personal interviews, if desirable, between the applicant and the nearest Canadian Government Agent. Likewise interested parties in the Old Country should apply to the Director of Emigration for Canada, Canadian Building, Trafalgar Square, London, S.W. 1, England.

Particulars of provincial legislation affecting the district and information respecting game regulations, schools, roads and other matters controlled by the local governments, are to be obtained on application to the Publicity Commissioner, Edmonton, Alberta, or, in the case of the Peace River block, to the Provincial Bureau of Information, Victoria, B.C.

For time tables, passenger and freight rates, or other information respecting railway transportation one should write to the Traffic Department of the Edmonton, Dunvegan and British Columbia Railway, Edmonton, Alberta, or apply in person to the nearest agent of any railway. For similar information respecting steamboat service on Peace river application should be made to the Traffic Manager, Alberta and Arctic Transportation Company, Limited, Edmonton, Alberta.

For information respecting such matters as business or professional opportunities, lands for sale, labour conditions and other purely local subjects one should not hesitate to write to the Secretary of the Board of Trade or of the Municipal District in the town or municipality under consideration. Such officers are ever ready and willing to give full and reliable information on such topics. Being on the ground they are in constant touch with local conditions.

No advance information, of course, is quite so satisfactory as that gained by a personal inspection. While the Peace River country has wonderful opportunities and nothing to hide, the prospective settler or resident is strongly advised, if convenient to do so, to look it over first and let his own observations be the determining factor in deciding his course of action.

PERSONAL ENDORSATIONS

Volumes might be filled with letters of endorsation from settlers who have made good in the Peace River country or in narratives of outstanding successes. Space and purpose do not warrant more than a couple of such convincing statements. The following endorsations are of more than ordinary weight. The first is by W. D. Albright, and the second by Robt. Jones, Superintendents respectively of the Dominion Government Experimental Sub-stations at Beaverlodge and Fort Vermilion.

These men are primarily pioneers and farmers, not government employees. In lieu of more permanent provision the Department of Agriculture made working arrangements with them for the carrying out of more extensive experimental work than could be expected from private enterprise. At Beaverlodge, for instance, between fifty-five and sixty acres of land are



BEAVERLODGE EXPERIMENTAL SUB-STATION

Superintendent's residence and experimental building. Much valuable work is being done at the Beaverlodge and Fort Vermilion stations.

now devoted to intensive plot work, and at both points the time of the Superintendents is claimed by public service. But in addition to this they are still working their own farms and are in a very real sense bona fide settlers. One is located in the southwest part of the country, the other in the northeast; as the crow flies they are two hundred and fifty-five miles apart.

Mr. Albright's statement follows:—

The writer left professional life in Eastern Canada to come to the Grande Prairie district as a pioneer. He bought land and proved up a homestead in the ordinary way. Experimental work came later through other volition than his own. He likes the country, likes the life and is here to stay. He is a farmer by choice and a Peace River farmer by preference. He believes in the country and recommends it without hesitation to red-blooded married men and women who are willing to work and to accept for a time the frugalities of pioneer life in order, out of small capital, to build for themselves permanent homes and to rear their families under the best of living conditions.

In his thirteen years' experience he has never failed to ripen grain on the high land where he lives. His only very poor crops were in 1916 and 1924. In the former year, August frost reduced the yield of Marquis wheat to about nine bushels per acre in the field, plots doing somewhat better. Even in that year the oats on breaking were good for sixty or so. In 1924 drouth and grasshoppers depressed field yields to about eight bushels of wheat. In 1918, it is true, a July frost caught much grain in the blossom, and a field on medium elevation yielded only about ten bushels per acre of a very low grade, but higher slopes matured big yields. In 1922 when the April to August rainfall was only 3.57 inches, Ruby wheat on a measured acre of potato ground yielded twenty bushels.

He has never failed to grow a surplus of potatoes and staple vegetables, and since 1917 has always had some domestic small fruit. On his homestead, which is low-lying, he does not grow wheat, but hay has always been safe, and "green feed," whenever attempted. This record of production in the pioneer stage is more convincing than the most discerning predictions based upon isotherms, flora, or meteorological records.

It is a good country now, with a coming future, but as in all new regions a careful start is most likely to result in a strong finish. Success is almost certain to him who will refrain from plunging but will rather profit by the experience of others, choose the sensible way and gradually build up. Now is a good time to come. Be ahead of the rush.

Under date of August 25, 1926, Mr. Jones writes:—

In the year 1889 I came to Fort Vermilion as farm instructor to the Anglican Church Mission, and continued in that capacity for thirteen years. I then settled on vacant land a few miles upstream and have farmed there continuously since that date. My claim to being a genuine pioneer of the lower Peace River district, therefore, is based on thirty-seven years' farming experience therein.

In this time no crop failure has ever been known hereabouts. On the contrary the district has proved particularly favourable for grain growing and cattle raising. On both mission and home farms an unbroken series of successful years has been enjoyed, and since undertaking experimental work for the Government as an additional branch of farm work, I have had amazing and remarkable results in the production of a wide range of cereals, forage plants, fruits and vegetables.

Speaking from personal experience and knowledge I can most heartily recommend this great Peace River country to real men and women who are land and home hungry. I am an out-and-out farmer, first and last, and would not exchange my location here on the Peace for any other in Western Canada.



Typical Peace River Park Land.

